



Highlights

*Epidemiological week no. 19
(5 to 11 May 2013)*

- **Measles:** This week a total of 37 alerts investigated. 403 measles cases were reporting from 17 districts. Vitamin-A drops provided to all the suspects and district health teams took action to improve vaccination in affected areas.
- **64 districts** and 1758 health facilities have reported to DEWS this week 19, compared with 66 districts with 1913 health facilities shared weekly data in week 18, 2013 to the Disease Early Warning System (DEWS).
- **605,354** patients' consultations were reported in week 19, 2013 compared to **648,731** consultations reported in week 18, 2013.
- Altogether **49** alerts were investigated and response were provided to **5** outbreaks.

Figure-1: 64 districts reported to DEWS in week 19, 2013



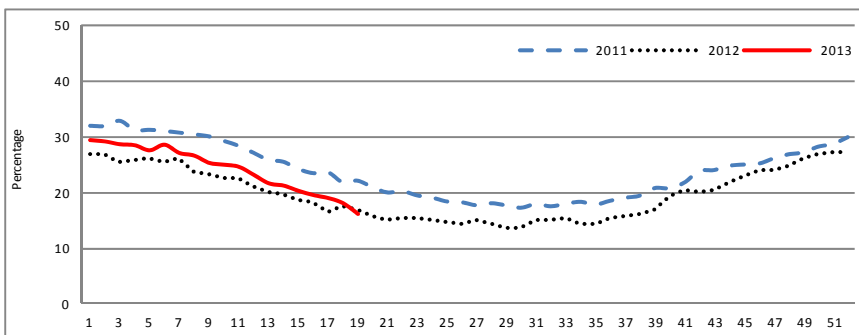
Priority diseases under surveillance in DEWS

- 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 19, 2013 (29 Dec 2012 to 11 May 2013)

Disease	# of Cases	Percentage
ARI	3,741,239	24%
Bloody diarrhoea	41,515	<0.5%
Acute diarrhoea	1,093,551	7%
S. Malaria	702,686	5%
Skin Diseases	573,952	4%
Unexplained fever	500,043	3%
Total (All consultations)	15,319,526	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-19, 2013.



Major health events reported during the Epi-week - 19 (5 - 11 May 2013)

Disease	# of Cases	Percentage
ARI	97,476	16%
Bloody diarrhoea	1,442	<0.5%
Acute diarrhoea	49,576	8%
S. Malaria	23,178	4%
Skin Diseases	21,441	4%
Unexplained fever	18,113	3%
Total (All consultations)	605,354	

- 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.

Outbreaks (Wk-19/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
10-May	Leishmaniasis	Balochistan	Killa Saifullah	Town Area, THQ Muslim Bagh	0	0	0	0	In continuation of Cutaneous Leishmaniasis outbreak 27 new Cutaneous Leishmaniasis cases were investigated. So far 507 cases have been reported from THQ Muslim Bagh Area. Stock of relevant medicines is present in the health centre. All the suspected cases were being treated regularly. Information shared regularly with DHO.
7-May	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village & UC Kohi Bermol, Tehsil Katlang, Mardan	1	0	0	4	Alert for Cutaneous Leishmaniasis reported from UC Kohi Bermol, Tehsil Katlang. During active surveillance 4 more clinical cases were identified. Required doses of Injection Glucantime were placed in nearby health facility for all the registered cases. PPHI were requested for vector control interventions in the area and surrounding. On the job training of health staff conducted for Intralesional administration of Injection Glucantime. Information shared with EDO Health and focal person.
6-May	Measles	Punjab	Lahore	Ravi Town	17	3	16	1	In continuation of Measles outbreak in Ravi Town, Lahore. 37 new suspected cases were identified. A total of 501 cases have been reported so far. All the suspected cases were given 1st dose of Vitamin-A, while vaccinators and LHWs were requested to ensure 2nd dose on next day. A total of 100 children were checked for routine EPI coverage where 32 children found to have missed second dose of Measles. 2 blood sample and throat swabs were taken and sent to NIH. Mass vaccination campaign arranged in the nearest health facility and a total of 300 children were vaccinated. HE to mothers in community was conducted with the help of LHWs religious and community Leaders. All the information shared with EDO(H) and Director EPI.
8-May	Measles	Punjab	Lahore	Data Ganj Baksh Town	20	16	19	6	In continuation of Measles outbreak 61 new suspected cases were reported from Dataganj Baksh town, Lahore. A total of 394 cases have been reported so far. All the suspected cases were given 1st dose of Vitamin-A, while vaccinators and LHWs were requested to ensure 2nd dose on next day. 2 blood samples and throat swabs were taken and sent to NIH. Mass Vaccination campaign arranged in the community with the help of religious leaders and a total of 450 children were vaccinated. All information shared with EDO(H) and Director EPI.
7-May	Measles	Sindh	Karachi	PIB colony, Nishtar Basti, near Old Sabzi Mandi, Gulshan Iqbal Town	2	2	1	3	Alert for suspected Measles case admitted at Civil hospital, Karachi. During field visit in the area 7 more cases were found, all suspected cases were found unvaccinated. 1 blood sample taken and sent to NIH. Vitamin-A doses were given to all the suspected cases. Health education session conducted in the community. Vaccination status of 19 children were assessed. BCG=(42%), Penta-1=(32%), Penta-2=(21%), Measles-1=(16%). Information shared with THMT and request for Mop-up activity in the area.

Figure-3: Number of alerts received and responded, week 16 - 19, 2013

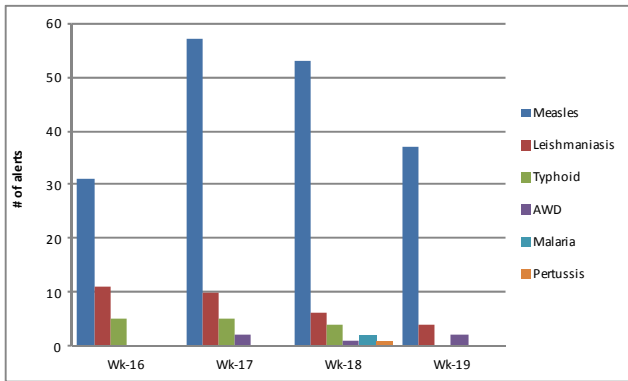
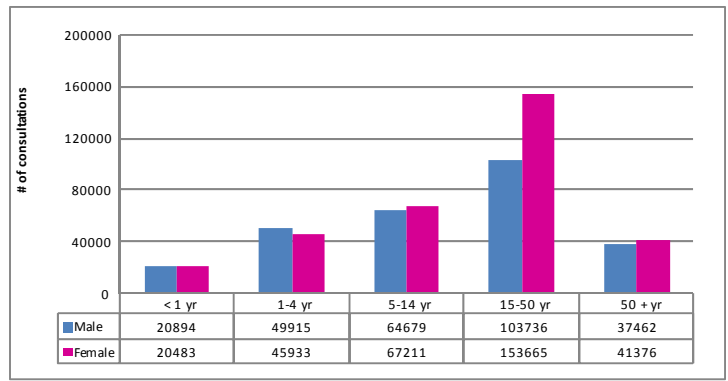


Figure-4: Number of consultations by age and gender, week 19, 2013



Province Khyber Pakhtunkhwa:

163 health facilities from 6 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 40,623 patients consultations reported in week 19, 2013. 20 alerts, 18 were for Measles, while 2 for Cutaneous Leishmaniasis were received and appropriate measures were taken. ARI trend showing decrease as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

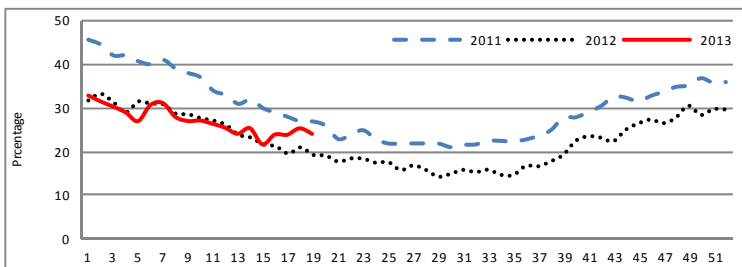
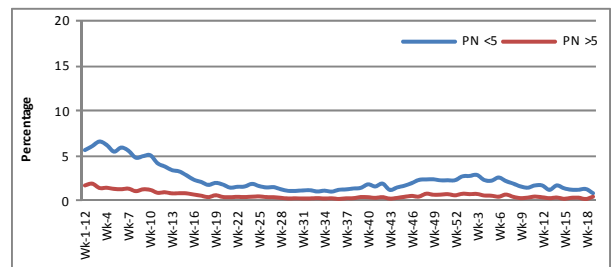


Figure-6: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 19, 2013



Province Sindh:

773 health facilities from 23 districts in Sindh province reported to DEWS with a total of 223,440 patient consultations in week 19, 2013. 3 alerts, 2 for AWD and 1 for Cutaneous Leishmaniasis were received and appropriate measures were taken. ARI trend showing decrease as compared with last week.

Figure-7: Trend of ARI, province Sindh

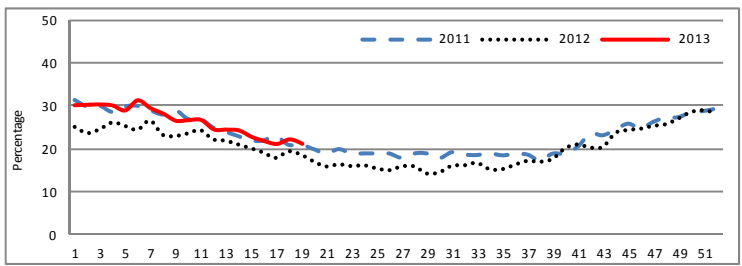
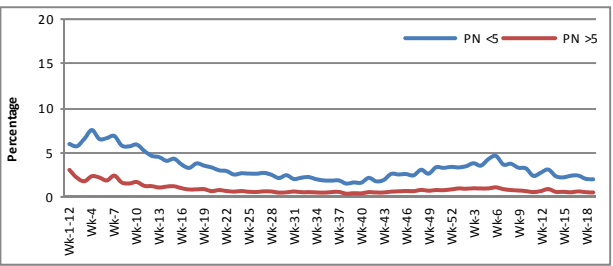


Figure-8: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 19, 2013



Province Punjab:

487 health facilities from 9 districts in province Punjab reported to DEWS with a total of 290,567 patients consultations in week 19, 2013. Total 15 alerts were received and appropriate measures were taken. Altogether 13 alerts were for Measles; while 1 each for ARI and Scabies. ARI trend showing decrease as compared with last week.

Figure-9: Trend of ARI, province Punjab

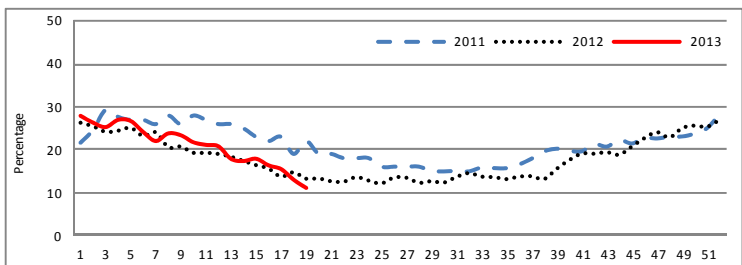
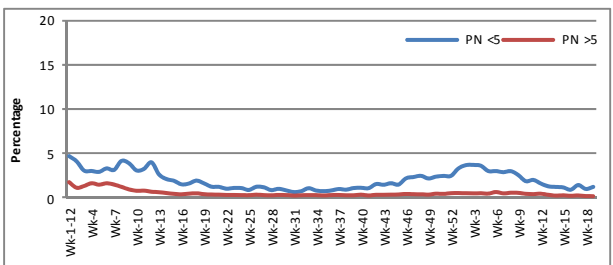


Figure-10: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 19, 2013



Province Balochistan:

207 health facilities from 13 districts in province Balochistan reported to DEWS with a total of 21,862 patients consultations in week 19, 2013. Total 6 alerts reported and appropriate measures were taken in week 19, 2013. Altogether 3 alerts for Measles; while 1 each for CCHF, Cutaneous Leishmaniasis and Chick-enpox. ARI trend showing decrease as compared with last week.

Figure-11: Trend of ARI, province Balochistan

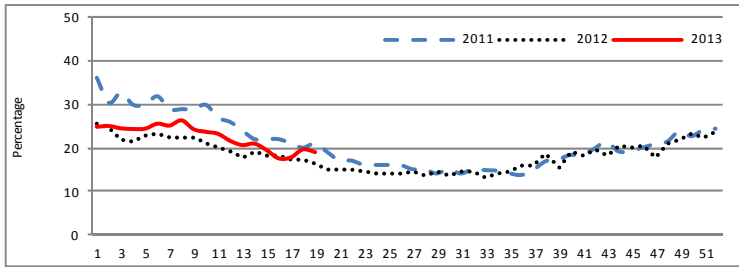
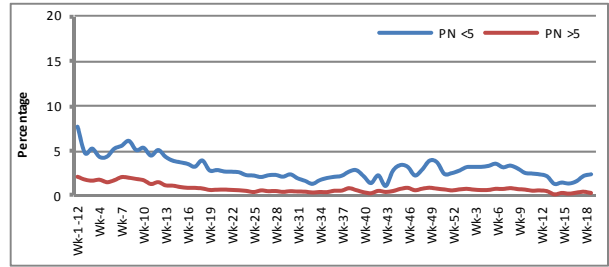


Figure-12: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 19, 2013



Province Gilgit Baltistan:

23 health facilities from 4 districts in Gilgit Baltistan reported to DEWS with a total of 3,836 patients consultations in week 19, 2013. No alerts for any disease was reported in last 10 weeks (Wk 10 to 19), 2012. ARI showing stability as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

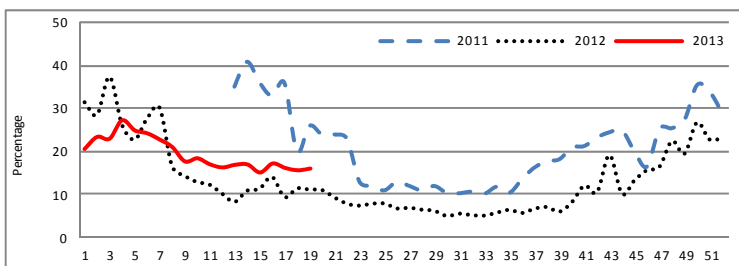
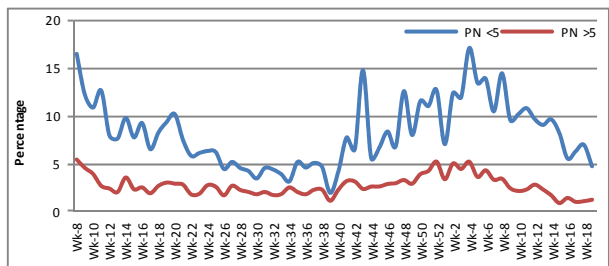


Figure-14: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 19, 2013



FATA:

13 health facilities from 1 agency in FATA reported to DEWS with a total of 4,263 patients consultations in week 19, 2013. 4 alerts, 2 each for Measles and NNT were reported in week 19, 2013 and appropriate measures were taken. ARI showing decrease as compared with last week.

Figure-15: Trend of ARI, FATA

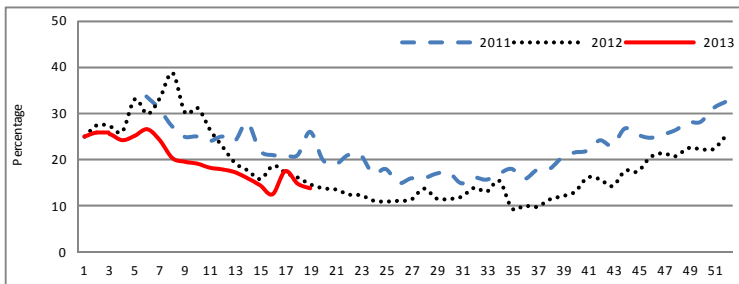
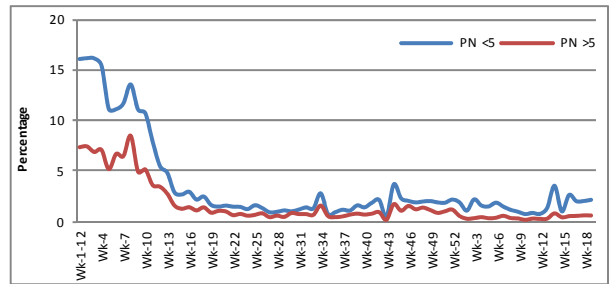


Figure-16: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 19, 2013



State of Azad Jammu and Kashmir:

77 health facilities from 7 districts in AJ&K reported to DEWS with a total of 16,972 patients consultations in week 19, 2013. No alerts for any disease were reported in week 19, 2013. ARI trend showing decrease as compared with last week.

Figure-17: Trend of ARI, AJ&K

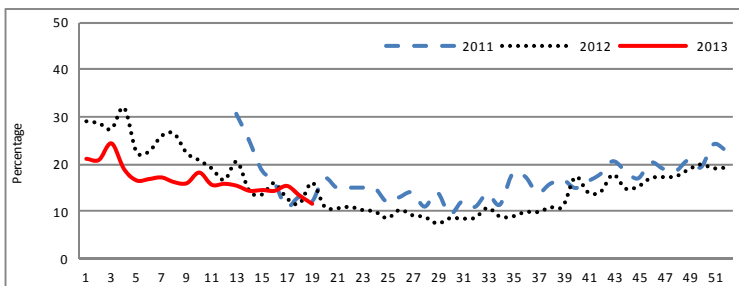


Figure-18: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 19, 2013

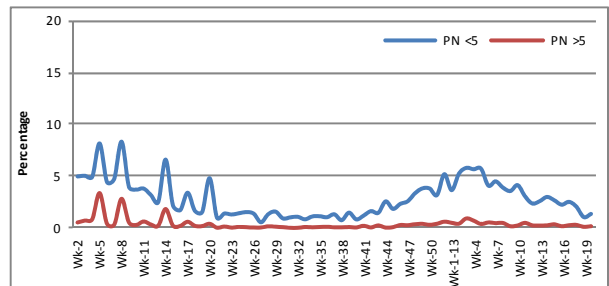
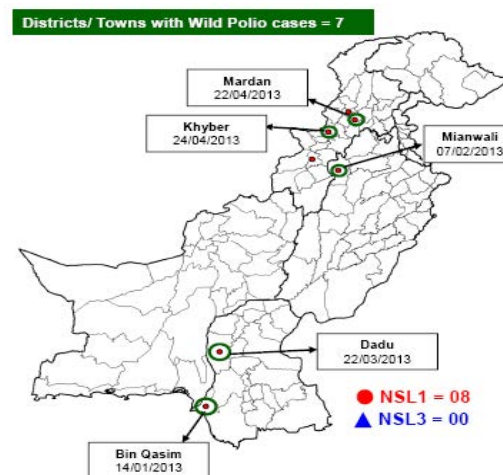


Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 19, 2013		2013 (Total up till week - 19)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	2	0	15	2
Acute jaundice syndrome	113	22	0	0	9	3
Bloody diarrhoea	146	11	0	0	11	1
CCHF	68	41	1	0	8	3
Dengue fever	175	29	0	0	2	0
Diphtheria	60	16	0	0	14	1
Measles	5922	812	37	0	1791	217
Pertussis	366	147	0	0	23	4
NNT + tetanus	560	0	2	0	109	0
Malaria	136	68	0	0	8	2
Cutaneous Leishmaniasis	900	78	4	1	307	38
Others	1529	58	3	0	172	3
Total	10610	1453	49	1	2469	274

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- In week 19, 2013, two new wild polio cases were reported in the country. One each from Khyber agency in Federally Administered Tribal Areas (FATA) and Mardan district (K.P) bringing the total number of cases in 2013 to 8 (compared to 17 during the same time period last year) from 7 districts/towns/agency (compared to 10 during the same time period last year).

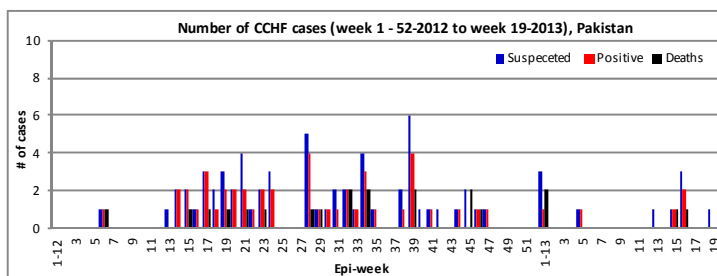


Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	1	-	-
Sindh	4	-	-	2	-	-
Khyber Pakhtunkhwa	27	-	-	4	-	-
FATA	17	2	1	1	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	8	-	-

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. 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.

In week 19, 2013, one new suspected CCHF case reported from district Killasaifullah, Balochistan (Lab result awaited). The suspected case is 17 years female found clear contact history with animals, taking care in home. Platelets count was 12000 at the time of admitting in the hospital and now improving. Health session with the guardians conducted. The total 10 CCHF cases have been reported in year 2013.



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 situation of CCHF cases in 2012-13.

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. There is ongoing trade of animals and animal skins with movement intra Pakistan and between neighboring countries (Afghanistan and Iran).

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 reduces 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 19 (11 May 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 19)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	130	7	266	1
Balochistan	447	119	1816	31	275	47	1124	45
FATA	211	31	559	13	57	12	176	3
Gilgit Baltistan	40	1	54	0	11	0	22	0
ICT	27	2	63	0	31	2	107	1
Khyber Pakhtunkhwa	1989	108	3542	38	528	68	1253	19
Punjab	809	40	1329	16	648	57	4753	49
Sindh	2234	505	7353	212	111	24	3174	142
Total	5922	812	14984	310	1791	217	10875	260

