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Bagh: Unprotected Water sources can be a danger
Pictured by: Dr. Musa Rahim / Engr. Imran



Highlights

- In the past month (Epidemiological weeks 10-13 inclusive), 149,452 health events under surveillance were reported including 68 deaths
- This week, there were 332 (99%) reporting units contributing to the report.
- In week 13, Total 149,452 consultations were reported, with 24 deaths
- This week rate of acute watery diarrhoea has 28% increased as compare with last week
- The rate of ARI this week 13 of 2007 is 2 percentage point higher than the rate in week 13 of 2006
- There were no cases of tetanus or acute haemorrhagic fever reported in this week.

The Weekly Morbidity and Mortality Report (WMMR) is published by the Ministry of Health of Pakistan (MOH) and the World Health Organization (WHO). The WMMR is built on surveillance data that health service providers and NGOs transmit on a weekly basis from health facilities and hospitals in those areas affected by the earthquake that struck Pakistan on 8 October 2005.

The WMMR objectives are to monitor the trend of health conditions over a period of time and provide vital information to all health partners. The WMMR is only a snapshot of the health conditions in those facilities where events are registered and data collected and does not necessarily reflect the situation from other health facilities.

The WMMR is a publication that has been developed for emergencies and previously used in other areas such as the Darfur Crisis.

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Reporting Units

The number of reporting sites was able to report increased by thirty-four this week, after a week of low reporting, the rate has returned to normal, despite heavy rains and landslides in the earthquake affected districts.

See Table 1 for summary statistics.

Table 1. Reported health facilities by district, Earthquake Affected Areas, Pakistan, 3 - 30 Mar 2007.

Area	Population	Reporting Health Facilities			
		3 - 9 Mar Week-10	10-16 Mar Week-11	17-23 Mar Week-12	24-30 Mar Week-13
Muzaffarabad	894,364	83	101	83	105
Bagh	452,532	43	42	42	44
Poonch	633,712	77	77	75	77
Mansehra / Balakot	1,154,804	71	70	65	68
Battagram / Shangla	592,256	31	34	33	38
Total	3,727,668	305(91%)	324(97%)	298(89%)	332(99%)

Total number of consultations

In week 13 there were an increasing in the number of reporting sites, and the number of consultations also increased to 107,194 from 67,369. The highest number of consultations by district was in Muzaffarabad, with 35,928, and the lowest was in Battagram, at 8,646. The weekly trend of reporting units participating in the DEWS and the number of consultations is shown in figure 1.

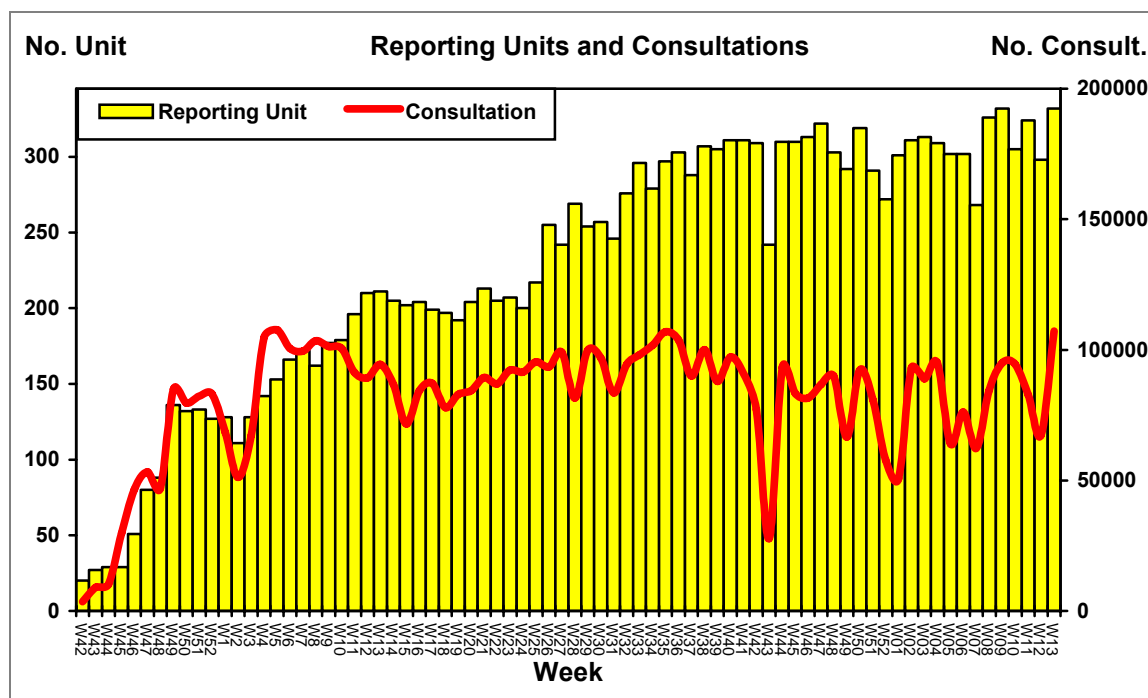


Figure 1. Weekly trend of reporting units and total number of consultations, Earthquake Affected Areas, Pakistan, 15 October 2005 - 30 March 2007.

DEWS Data, Epidemiological Week No. 11, 2007

Between 24 - 30 Apr 2007, **107,194** consultations were reported through DEWS. Overall, **24%** (25,321) were due to acute respiratory infections (**ARI**), 2 percentage point higher than the rate in week 13 of 2006. **7%** (7,572) due to fever of unknown origin (**FUO**), **6%** (5,994) of consultations were due to acute watery diarrhoea (**AWD**), and **4%** (3,987) due to injuries (**INJ**). All of these percentages are almost identical to the rate seen in similar week last year. **ARI** in patients under five years is 4% higher in week 13 of 2007 as compared to that same age group last year. At **20%** of consultations in patients 5 or more years old, the rate of ARI is 1% higher in this age group as compare last year. All other reportable conditions each represented less than 1% of the total consultations in week 13.

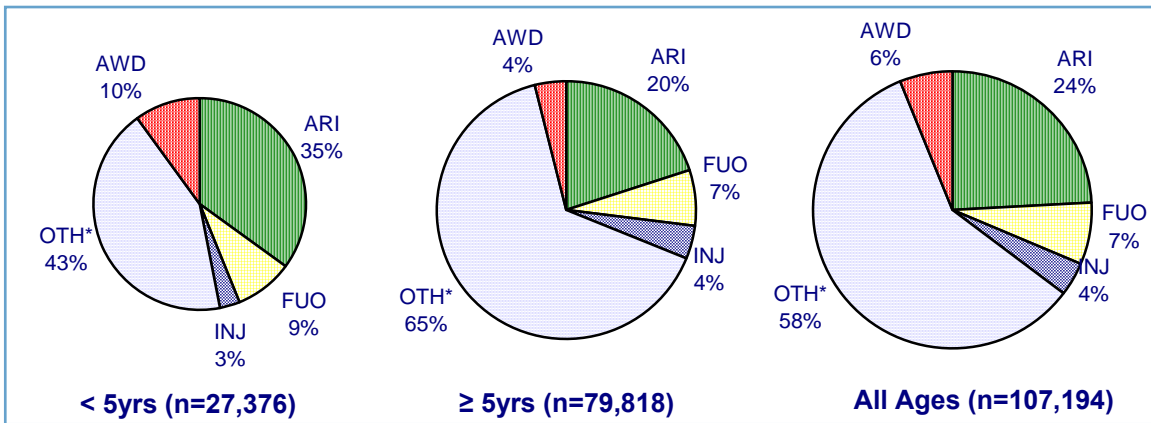


Figure 2. Proportion of primary causes for all reported cases, Earthquake Affected Areas, Pakistan, 24 - 30 March 2007.

*OTH includes all other reportable conditions, plus all other consultations for conditions not under surveillance

DEWS Data, Epidemiological Week No. 13, 2007: Consultations by age

Despite an improvement in the weather in recent weeks, the rate of ARI has remained almost identical, but decrease in patients less than five years, and also decrease in patients five and over. The stability of the rate of ARI throughout the winter is notable. See figure 3.

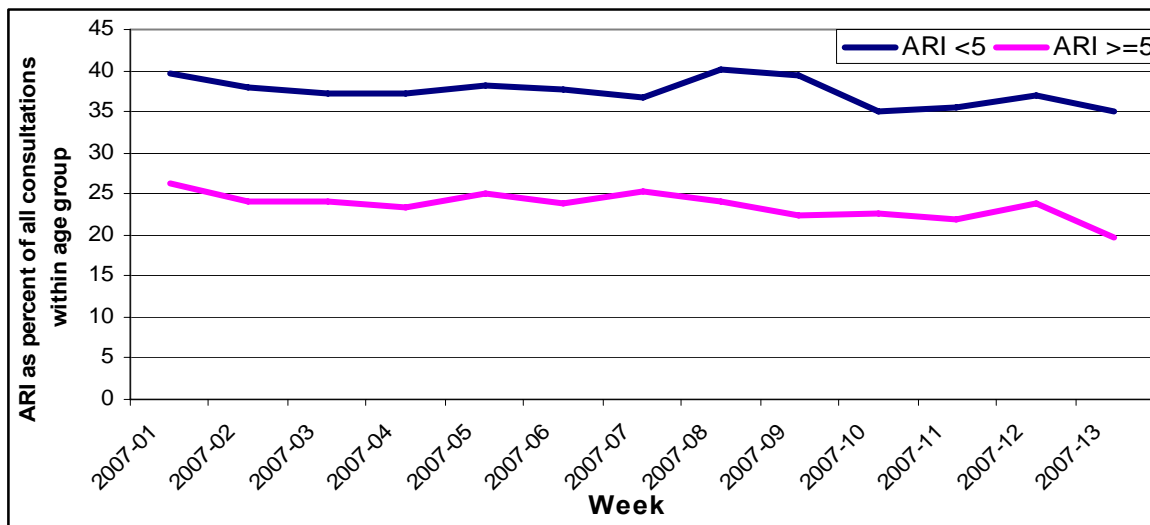


Figure 3: Trend in ARI as a percent of all consultations, by age group, Earthquake Affected Areas, Pakistan, 30 December 2006 – 30 March 2007

DEWS Data, Monthly Summary (Epidemiological Weeks No. 10-13)

In the past four weeks from 3 to 30 Mar 2007 (Epidemiological weeks 10-13 inclusive), 149,452 consultations for health conditions under surveillance were reported, out of a total 351,804 consultations. **25%** (88,784) of consultations were due to acute respiratory infection (**ARI**), **6%** (19,847) acute watery diarrhoea (**AWD**), **7%** (24,362) unexplained fever (**FUO**) and **4%** (13,985) Injuries (**INJ**).

Table 2. Comparison of the weekly distribution of reported cases, deaths and monthly Case Fatality Rate (CFR), Earthquake Affected Areas, Pakistan, 3–30 March 2007.

Week Event	WEEK 10		WEEK 11		WEEK 12		WEEK 13		TOTAL		CFR%
	C	D	C	D	C	D	C	D	C	D	
AWD	4813	0	4743	0	4297	0	5994	0	19847	0	0.000
BD	375	0	383	0	254	0	450	0	1462	0	0.000
AFP	0	0	0	0	0	0	2	0	2	0	0.000
MAL	156	0	206	0	170	0	306	0	838	0	0.000
ARI	24236	5	20935	1	18292	4	25321	6	88784	16	0.018
MES	0	0	1	0	0	0	2	0	3	0	0.000
MEN	8	1	7	3	3	1	3	0	21	5	24.000
JAU	30	0	23	0	18	0	19	0	90	0	0.000
TET	0	0	0	0	0	0	0	0	0	0	0.000
AHF	0	0	0	0	0	0	0	0	0	0	0.000
FUO	6252	0	6007	0	4531	0	7572	0	24362	0	0.000
INJ	3950	1	3069	0	2979	0	3987	1	13985	2	0.014
OTH	54672	10	47375	8	36825	10	63480	17	202352	45	0.022
TOTAL	94492	17	82749	12	67369	15	107194	24	351804	68	
RU	305		324		298		332				

C – Cases, D – Deaths, AWD - Acute Diarrhoea, BD - Bloody Diarrhoea, AFP - Acute Flaccid Paralysis, MAL – Malaria, ARI - Acute Respiratory Infection, MES – Measles, Men - Meningitis, JAU - Acute Jaundice Syndrome, TET - Neonatal Tetanus, AHF Acute Hemorrhagic Fever, FUO –Unexplained fever, INJ – Injuries, OTH – Others, RU – Reporting Units. Please note data from late reporting in previous weeks has been updated.

During the same reporting period **88,262** consultations were reported in the **less than 5 years old** group, (**25%** of the total consultations), of which **35%** (31,301) were due to **ARI**, **10%** (8,653) due to **AWD**, **8%** (6,803) due to **FUO** and **3%** (2,714) were reported as injuries (**INJ**).

Table 3. Total number of reported cases, deaths and monthly Case Fatality Rate (CFR), less than 5 years old, Earthquake Affected Areas, Pakistan 3 – 30 March 2007.

Week Event	WEEK 10		WEEK 11		WEEK 12		WEEK 13		TOTAL		CFR%
	C	D	C	D	C	D	C	D	C	D	
AWD	2107	0	2110	0	1772	0	2664	0	8653	0	0.013
BD	120	0	118	0	90	0	153	0	481	0	0.000
AFP	0	0	0	0	0	0	1	0	1	0	0.000
MAL	17	0	19	0	8	0	47	0	91	0	0.000
ARI	8029	3	7324	1	6380	3	9568	6	31301	13	0.042
MES	0	0	0	0	0	0	2	0	2	0	0.000
MEN	3	0	0	1	1	1	1	0	5	2	40.000
JAU	2	0	5	0	3	0	2	0	12	0	0.000
TET	0	0	0	0	0	0	0	0	0	0	0.000
AHF	0	0	0	0	0	0	0	0	0	0	0.000
FUO	1728	0	1629	0	1067	0	2379	0	6803	0	0.000
INJ	827	0	528	0	553	0	806	0	2714	0	0.000
OTH	10166	2	8872	2	7408	2	11724	6	38170	12	0.031
TOTAL	22999	5	20605	4	17282	6	27376	12	88262	27	
RU	305		324		298		332				

In the current week, there were an increasing in the number of cases of **AWD** with **4,297** last week and **5,994** this week. In the current week, **ARI** increased in the total number of cases as compared with the previous week, (**18,292** last week and **25,321** this week). The weekly proportion of ARI and AWD is shown in figure 4.

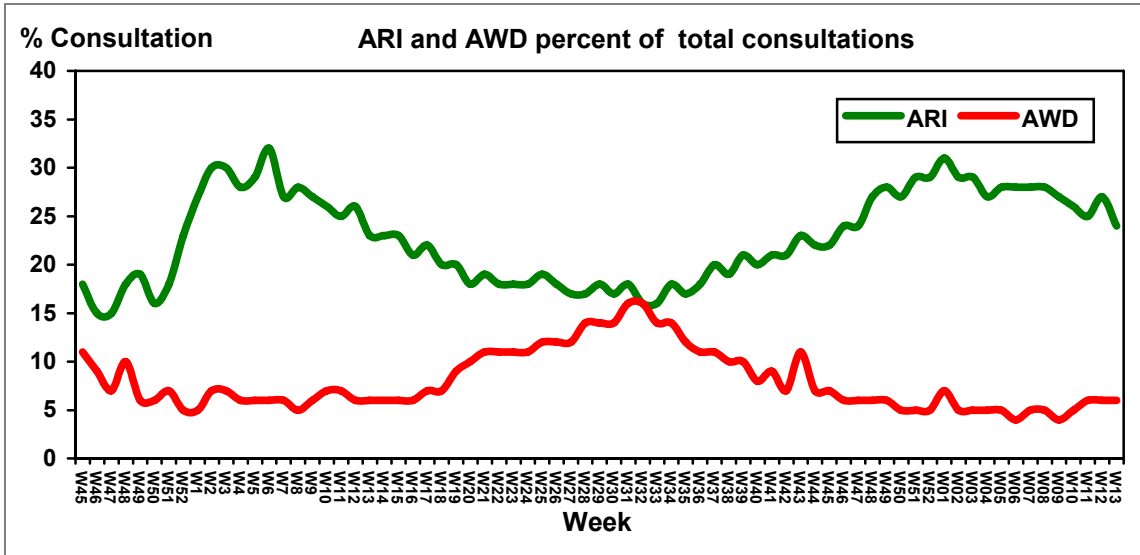


Figure 4. Weekly trend of percent of consultations for ARI and AWD, Earthquake Affected Areas, Pakistan, 5 November 2005 – 30 March 2007.

Acute Watery Diarrhoea

In week 13 there were 5,994 cases of AWD reported, a 28% increase over week 12. There were no associated deaths reported from any district. The rate of AWD in 2007 is less than 1% higher than that of 2006 for most weeks. However, the rate of AWD has been climbing in the past three weeks. See Figure 5.

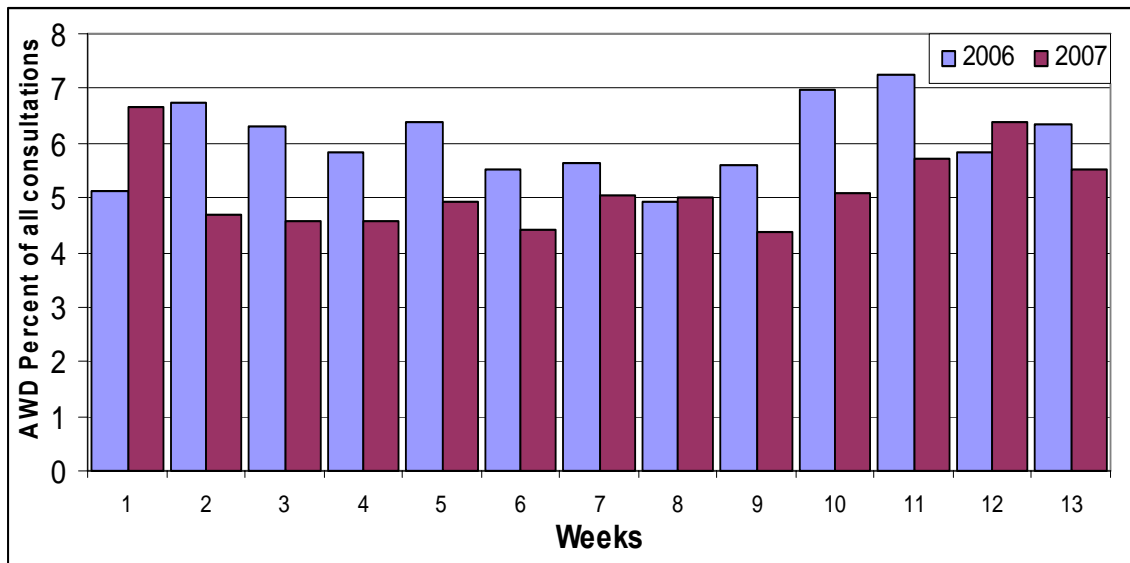


Figure 5: Trend in AWD as a percent of all consultations, 2006 and 2007, Earthquake Affected Areas, Pakistan, 30 December 2005 – 10 March 2006 and 31 December 2006 – 30 March 2007

Bloody Diarrhoea

In week 13, there were 450 cases of bloody diarrhoea reported, almost double the numbers over week 12. There were no associated deaths reported. In first 12 weeks the rate of bloody diarrhoea is lower and has less fluctuation in 2007 than in 2006 but in week 13 bloody diarrhoea cases were higher as compare to the last year. See figure 6

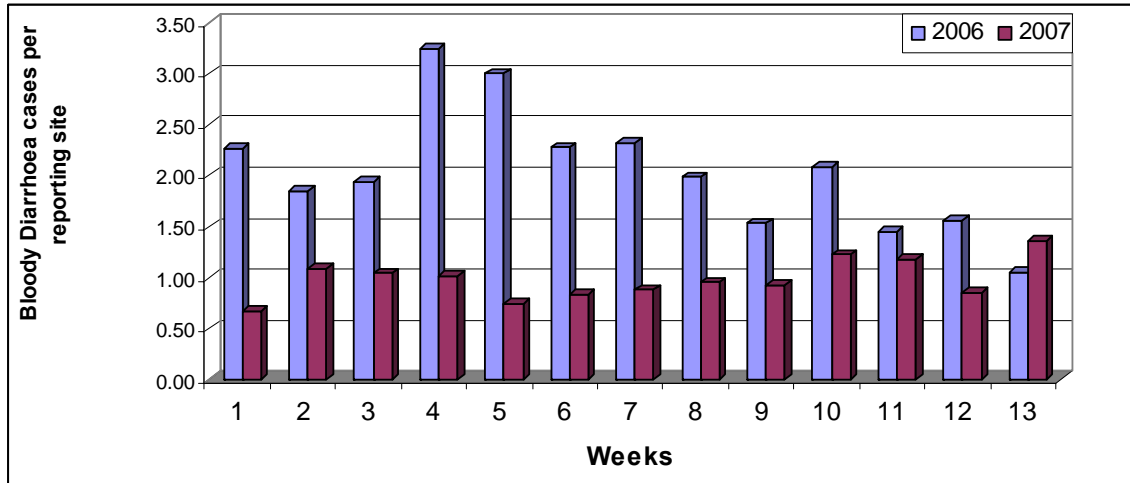


Figure 6: Trend in bloody diarrhoea cases per reporting site, 2006 and 2007, Earthquake Affected Areas, Pakistan, 31 December 2005 – 10 March 2006 and 30 December 2006 – 30 March 2007

Acute Jaundice Syndrome

In week 13 there were 19 cases of suspected hepatitis, 5% higher than the number of cases in the previous week. There were no associated deaths. In the first 9 weeks of 2007 and week 11, Battagram district has had a much higher rate of suspected hepatitis than any other districts, but in week 13 Mansehra district had higher rate than any other districts. However, it should be noted that the rate in all the districts is still less than one case per reporting site on average. See figure 7.

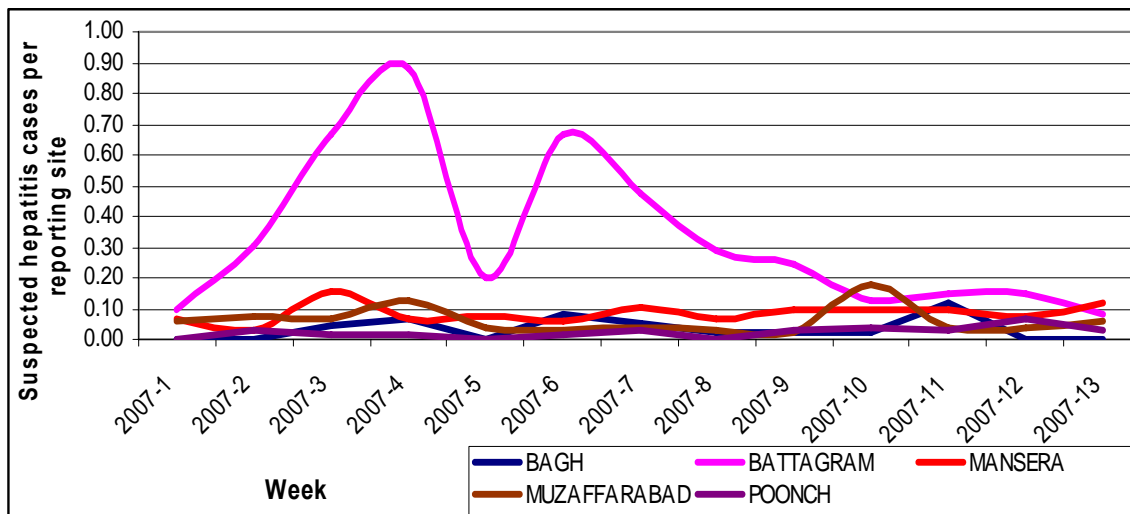


Figure 7: Trend in suspected hepatitis cases per reporting site, by district, Earthquake Affected Areas, Pakistan , 30 December 2006 – 30 March 2007

Malaria

In week 13, there were 306 suspected malaria cases reported, an increase of 44% from week 12. There were no associated deaths reported. The rate of malaria differs by district, and Poonch district has a rate 3 to 4 times higher than the other districts for last four weeks. See figure 8.

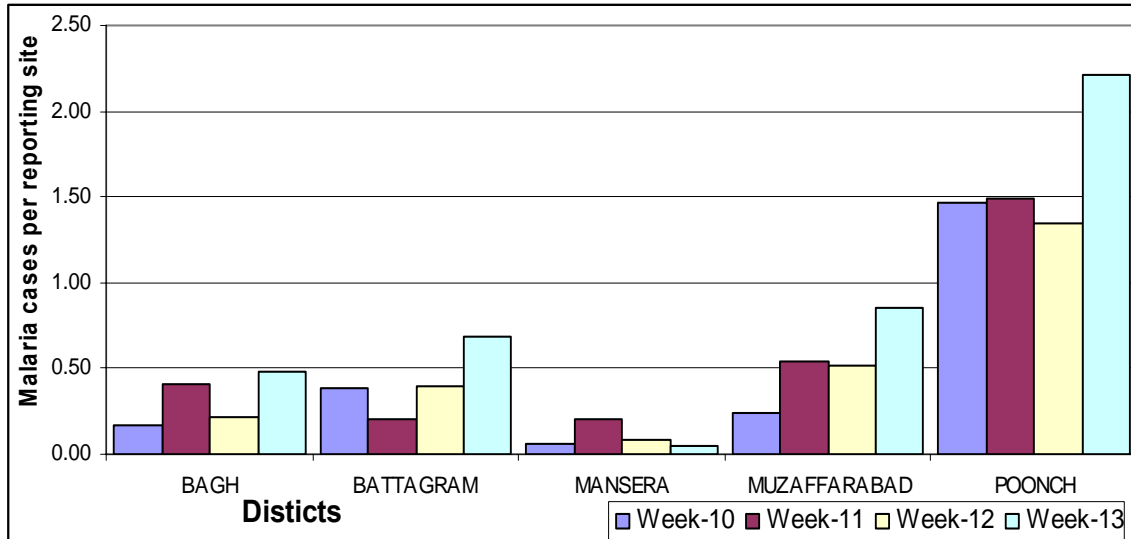


Figure 8: Trend in malaria cases per reporting site, by district, Earthquake Affected Areas, Pakistan, 3 – 30 March 2007

Measles

There were two cases of suspected measles reported in week 13, one case reported from Mansehra and one case reported from Rawalakot district. The number of measles cases has declined considerably over time. It reached a peak in mid 2006, but since beginning of 2007, there have been only 7 cases in total. See figure 9.

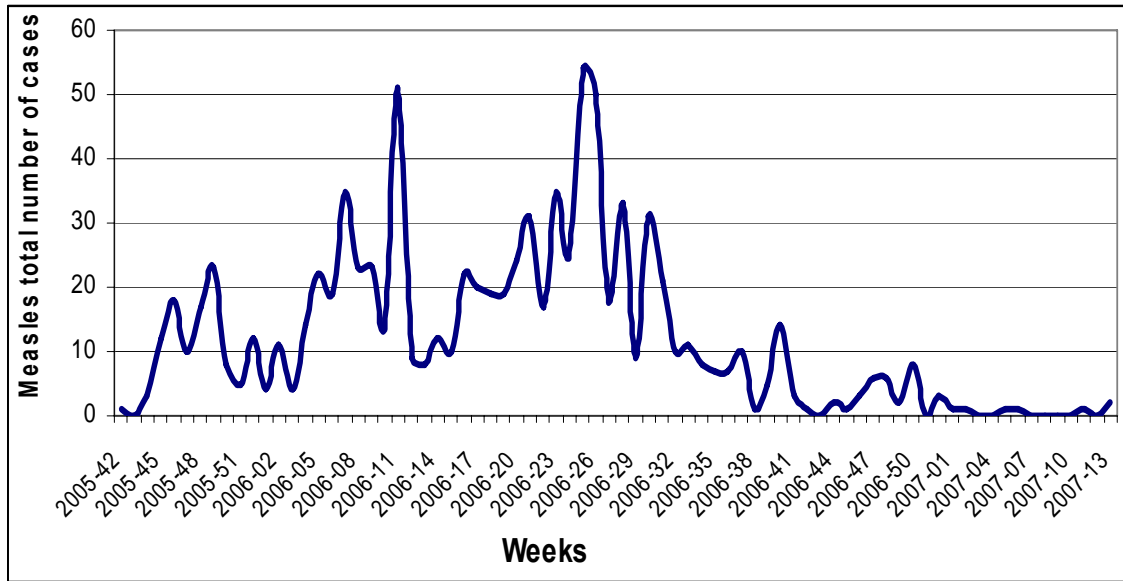


Figure 9: Measles total number of cases, 30 December 2006 – 30 March 2007

Acute Respiratory Infection

In week 13, there were 25,321 consultations for ARI reported through the DEWS. There were six associated deaths 4 under five from Muzaffarabad, and 1 under five from Mansehra and 1 under five from Bagh district. Though in the first 3 weeks of the year, the case fatality rate was higher for 2006 than for 2007, the rate in 2006 declined steadily, while in 2007 it has fluctuated considerably, and been consistently higher than that of 2006 since week 4, but lower again in week 10 and 11 and again higher in week 12 and week 13. See Figure 10.

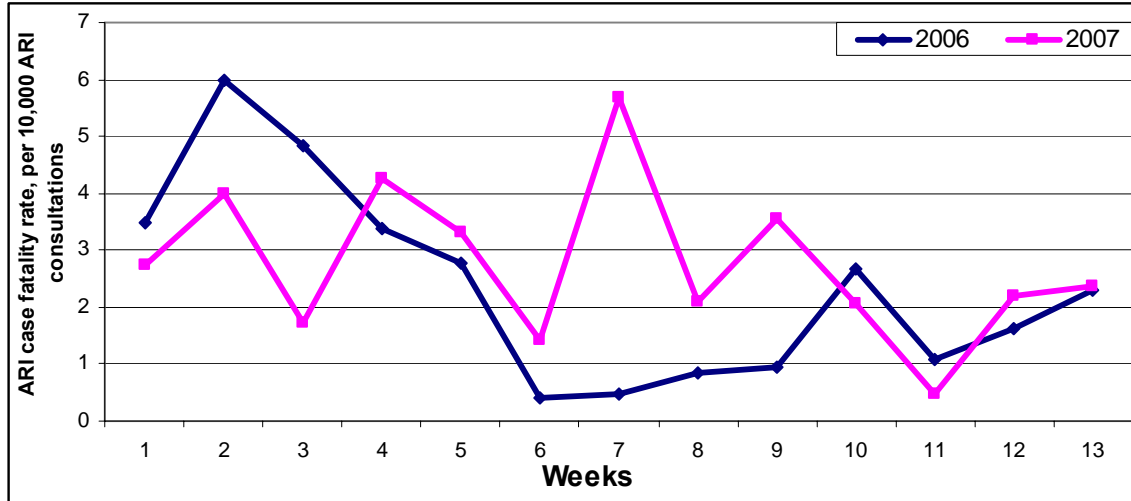


Figure 10: ARI case fatality rate per 10,000 ARI consultations, 2006 and 2007, Earthquake Affected Areas, Pakistan, 31 December 2005 – 17 March 2006 and 30 December 2006 – 30 March 2007.

Other Reportable Diseases and Conditions

There were 3 cases of suspected meningitis in week 13 reported: 2 cases over five years of age and one case under five years of age reported from Muzaffarabad district. There were 7,572 cases of fever of unknown origin, and 3,987 cases of injuries. There were no cases of tetanus or haemorrhagic fever reported in week 13.

Though meningitis is generally considered to have distinct seasonal pattern, this is not seen in the DEWS reported cases. There may be some difficulty in diagnoses of meningitis ; a majority of the suspected cases are negative when tested. See figure 11.

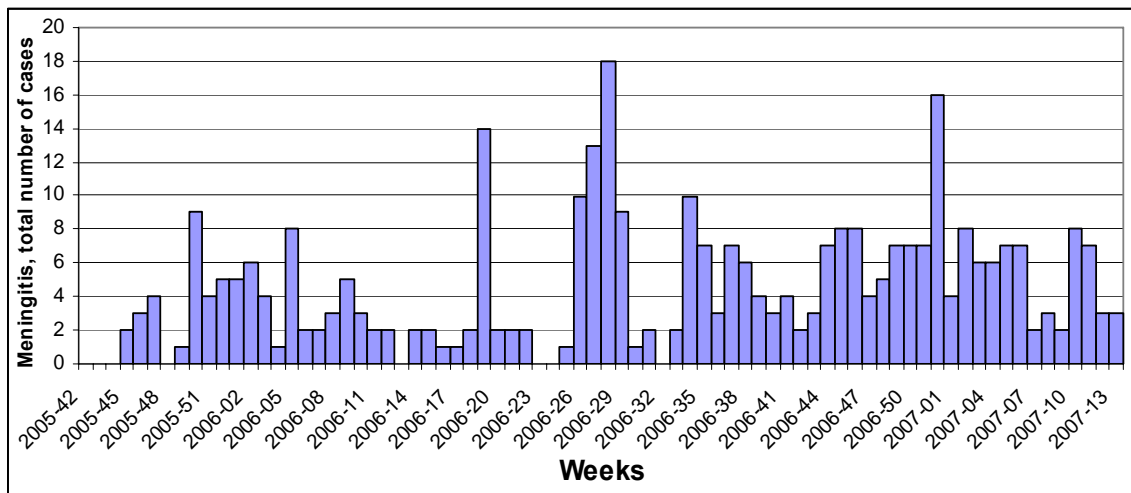


Figure 11: Trend in meningitis cases, Earthquake Affected Areas, Pakistan, 15 October 2005 – 30 March 2007

Outbreak Alert and Response¹

Suspected meningitis alert

Muzafarabad

Two cases of suspected meningitis were reported in AIMS. One is seven months old female child R/O Kardhalla/ Muzafarabad, who admitted on 28 March 2007 with fever and fits. LP was done and CSF was turbid under tension, on verification no other case was found.

The other case was reported in BHU Panjgran, and an investigation will be conducted later.

Acute Jaundice Syndrome (AJS):

Six cases of AJS were reported in different health facilities in Muzafarabad (AIMS: 2, RHC Chikar: 2, CMH: 1 and Konkan: 1, all these cases are sporadic.

Suspected Measles:

Rawalakot

A child of 4 years old from village Khain Topa of Rehara/ Rawalakot is reported as suspected measles on 3rd of April 07 in BHU Rehara. The patient developed fever on 23rd March, and then followed by rashes two days later, she was vaccinated. No more cases were reported.

Manhsera

A case of suspected measles was reported by CWS in RHC Kawai, on verification it revealed that it was a case of common cold.

Food poisoning alert:

Battagram

ACTION AID reported on 3rd of April an outbreak of food poisoning in Shamlai UC. The condition developed after funeral ceremony on 1st of April, when guests took lunch meal at around 13:30-14:00 hours. Most of them complained headache, diarrhoea and vomiting with some and moderate dehydration. On investigation it revealed that, the meal was comprised of beef meat and rice, those who ate beef meat developed this condition. All patients recovered without any complications. Stool and vomit samples were taken in addition to raw food stuff and sent for laboratory confirmation. Total number was 500 persons, from both sex and different age groups, they are from villages of Bach No1, Bach No 2 and Khari.

¹ Outbreak Investigation and response of Suspected Viral Hepatitis, Malaria, and Bloody Diarrhoea and Watery Diarrhoea would only take place when a cluster of cases is identified or there is an increase in the incidence of the disease.
(Note: Single death due to Diarrhoea and single case of reported severe dehydration among >5 years would be investigated)

Number of reported cases and deaths per District, AJKTable 6. Number of reported cases and deaths, **Bagh District**, Earthquake Affected Areas, Pakistan, 03 – 30 Mar 2007.

Week	AWD		BD		AFP		MAL		ARI		MEA		MEN		JAU		TET		AHF		UXF		INJ		OTH	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
10	653	0	39	0	0	0	7	0	3297	0	0	0	0	0	1	0	0	0	0	0	218	0	561	0	11264	2
11	582	0	29	0	0	0	17	0	2769	0	0	0	0	0	5	0	0	0	0	0	246	0	591	0	8730	2
12	568	0	21	0	0	0	9	0	2799	0	0	0	0	0	0	0	0	0	0	0	187	0	618	0	6939	2
13	973	0	71	0	2	0	21	0	3444	1	0	0	0	0	0	0	0	0	0	0	307	0	672	0	11045	1
Total	2776	0	160	0	2	0	54	0	12309	1	0	0	0	0	6	0	0	0	0	0	958	0	2442	0	37978	7

Table 7. Number of reported cases and deaths, **Poonch District**, Earthquake Affected Areas, Pakistan, 03 – 30 Mar 2007.

Week	AWD		BD		AFP		MAL		ARI		MEA		MEN		JAU		TET		AHF		UXF		INJ		OTH	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
10	1287	0	43	0	0	0	113	0	4192	1	0	0	0	0	3	0	0	0	0	0	2088	0	684	0	7796	3
11	1244	0	34	0	0	0	113	0	3856	0	0	0	0	0	2	0	0	0	0	0	2030	0	638	0	6694	2
12	1283	0	42	0	0	0	100	0	3229	0	0	0	1	1	5	0	0	0	0	0	1498	0	526	0	6136	0
13	1210	0	46	0	0	0	166	0	3861	0	1	0	0	0	2	0	0	0	0	0	1881	0	735	0	8728	5
Total	5024	0	165	0	0	0	492	0	15138	1	1	0	1	1	12	0	0	0	0	0	7497	0	2583	0	29354	10

Table 8. Number of reported cases and deaths, **Muzaffarabad District**, Earthquake Affected Areas, Pakistan, 03 – 30 Mar 2007.

Week	AWD		BD		AFP		MAL		ARI		MEA		MEN		JAU		TET		AHF		UXF		INJ		OTH	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
10	1712	0	226	0	0	0	20	0	9420	3	0	0	7	1	15	0	0	0	0	0	2065	0	2066	1	17536	4
11	1580	0	250	0	0	0	55	0	7744	1	0	0	7	2	4	0	0	0	0	0	1852	0	1315	0	15932	2
12	1327	0	148	0	0	0	43	0	6924	2	0	0	2	0	3	0	0	0	0	0	1191	0	1415	0	11707	5
13	1936	0	237	0	0	0	90	0	9809	4	0	0	3	0	6	0	0	0	0	0	2694	0	1803	1	19350	7
Total	6555	0	861	0	0	0	208	0	33897	10	0	0	19	3	28	0	0	0	0	0	7802	0	6599	2	64525	18

Number of reported cases and deaths per District, NWFPTable 9. Number of reported cases and deaths, **Battagram District**, Earthquake Affected Areas, Pakistan, 03 – 30 Mar 2007.

Week	AWD		BD		AFP		MAL		ARI		MEA		MEN		JAU		TET		AHF		UXF		INJ		OTH	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
10	334	0	39	0	0	0	12	0	1792	0	0	0	0	0	4	0	0	0	0	0	376	0	164	0	3357	0
11	261	0	33	0	0	0	7	0	1421	0	1	0	0	0	5	0	0	0	0	0	248	0	167	0	2530	1
12	306	0	23	0	0	0	13	0	1092	0	0	0	0	0	5	0	0	0	0	0	326	0	114	0	2169	0
13	528	0	58	0	0	0	26	0	2401	0	0	0	0	0	3	0	0	0	0	0	501	0	236	0	4893	1
Total	1429	0	153	0	0	0	58	0	6706	0	1	0	0	0	17	0	0	0	0	0	1451	0	681	0	12949	2

Table 10. Number of reported cases and deaths, **Mansehra District***, Earthquake Affected Areas, Pakistan, 03 – 30 Mar 2007.

Week	AWD		BD		AFP		MAL		ARI		MEA		MEN		JAU		TET		AHF		UXF		INJ		OTH	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
10	827	0	28	0	0	0	4	0	5535	1	0	0	1	0	7	0	0	0	0	0	1505	0	475	0	14721	1
11	1076	0	37	0	0	0	14	0	5145	0	0	0	0	1	7	0	0	0	0	0	1631	0	358	0	13489	0
12	813	0	20	0	0	0	5	0	4248	2	0	0	0	0	5	0	0	0	0	0	1329	0	306	0	9874	3
13	1347	0	38	0	0	0	3	0	5865	1	1	0	0	0	8	0	0	0	0	0	2189	0	541	0	19464	3
Total	4063	0	123	0	0	0	26	0	20793	4	1	0	1	1	27	0	0	0	0	0	6654	0	1680	0	57548	7