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Bagh: Snowfall after heavy rain create difficulties for the population.
Picture by: Torgim Halvari



Highlights

- In the past month (Epidemiological weeks 04-07 inclusive), 130,109 health events under surveillance were reported including 90 deaths
- This week, there were 267 reporting units contributing to the report.
- In week 7, Total 62,149 consultations were reported, with 23 deaths
- The rate of acute watery diarrhoea has decreased from week 6 (5%)
- The ARI rate is two percentage points lower in week 7 of 2007 than that of week 7 of 2006
- There were no measles cases reported in week 7

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 sites able to report decreased by nine percentage points this week; there is a large scale strike of government departments in Bagh which has reduced their reporting capacity, which has also resulted in fewer health facilities providing services. Heavy rains and snow in the districts may have also had an impact on reporting.

See Table 1 for summary statistics.

Table 1. Reported health facilities by district, Earthquake Affected Areas, Pakistan, 20 Jan - 16 Feb 2007.

Area	Population	Reporting Health Facilities			
		20-26 Jan Week-4	27Jan-2 Feb Week-5	3 - 9 Feb Week-6	10-16 Feb Week-7
Muzaffarabad	894,364	106	101	103	104
Bagh	452,532	40	37	36	18
Poonch	633,712	68	66	58	37
Mansehra / Balakot	1,154,804	62	68	68	69
Battagram / Shangla	592,256	33	30	35	39
Total	3,727,668	309(95%)	302(93%)	300(91%)	267(82%)

Total number of consultations

In week 7 there was a decrease in the number of reporting sites, and the number of consultations also decreased to 62,149 from 75,773. The highest number of consultations by district was in Muzaffarabad, with 24,221 and the lowest was in Bagh, at 5,553.

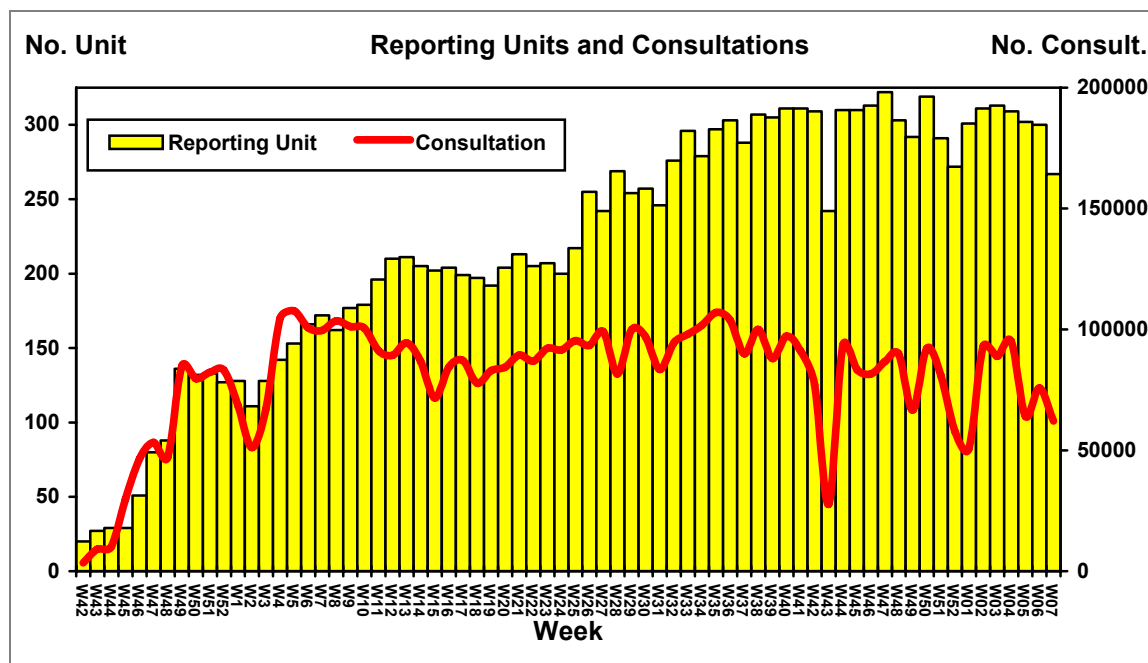


Figure 1. Weekly trend of reporting units and total number of consultations, Earthquake Affected Areas, Pakistan, 15 October 2005 – 16 February 2007.

DEWS Data, Epidemiological Week No. 07, 2007

Between 10 – 16 Feb 2007, **62,149** consultations were reported through DEWS. Overall, **28%** (17,453) were due to acute respiratory infections (**ARI**), two percentage point less than the rate in week 7 of 2006. **5%** of consultations (3,155) were due to acute watery diarrhoea (**AWD**), **5%** (3,394) due to fever of unknown origin (**FUO**), and **4%** (2,475) due to injuries (**INJ**). All of these percentages are almost identical to the rate seen in this week last year. **ARI** in patients under five years is 2% higher in week 7 of 2007 compared to that of week 7 of 2006. At **25%** of consultations in patients 5 or more years old, the rate of ARI is 2% higher in this age group as the rate seen in this week last year. All other reportable conditions each represented less than 1% of the total consultations in week 7.

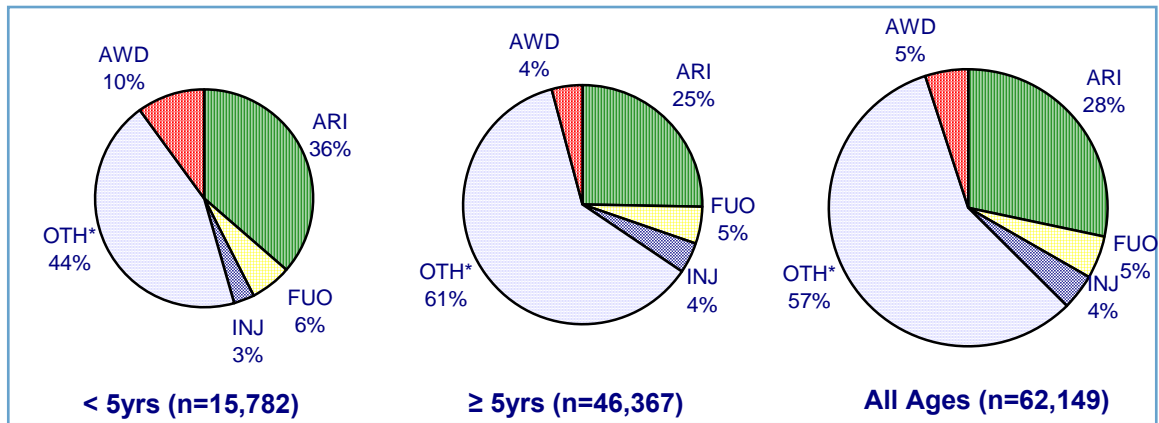


Figure 2. Proportion of primary causes for all reported cases, Earthquake Affected Areas, Pakistan, 10 - 16 Feb 2007.

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

DEWS Data, Epidemiological Week No. 06, 2007: Consultations by age

The rate of ARI in patients under five is consistently higher than those five and over. When examined by age group and district, those districts with lower rates in one age category also have lower rates in the other age category, with the exception of Poonch district, which has a lower rate in the under five category, but a higher rate in patients five and over. See figure 3.

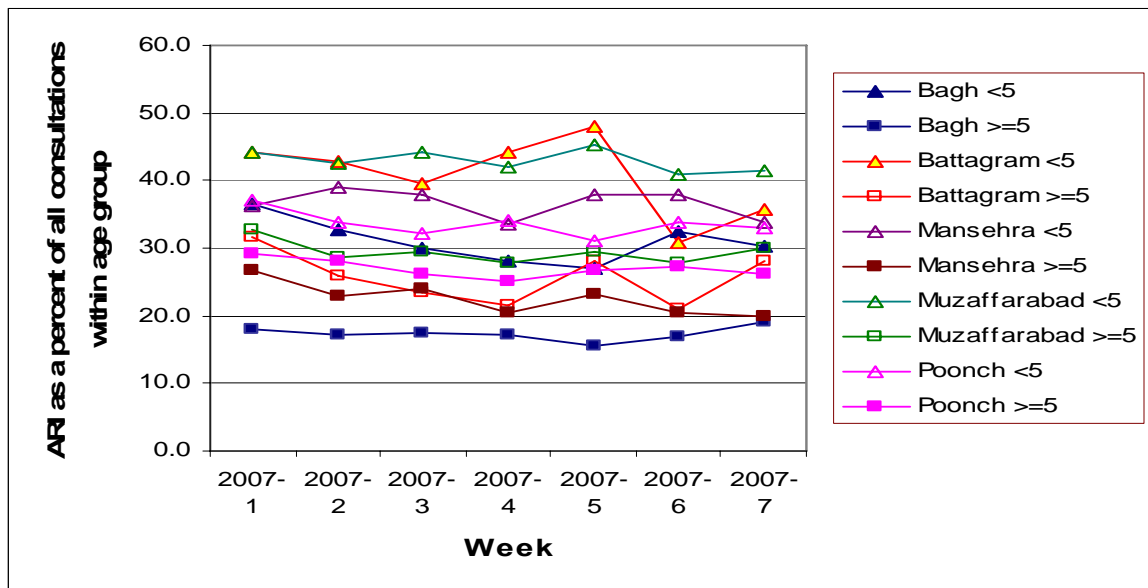


Figure 3: ARI as a percent of all consultations, by age group and district, Earthquake Affected Areas, Pakistan, 30 December 2006 – 16 February 2007

DEWS Data, Monthly Summary (Epidemiological Weeks No. 04-07)

In the past four weeks between 20 Jan - 16 Feb 2007 (Epidemiological weeks 04-07 inclusive), 130,109 consultations for health conditions under surveillance were reported, out of a total 297,106 consultations. **28%** (81,914) of consultations were due to acute respiratory infection (**ARI**), **5%** (13,979) acute watery diarrhoea (**AWD**), **7%** (19,559) unexplained fever (**FUO**) and **4%** (12,851) Injuries (**INJ**).

Table 2. Comparison of the weekly distribution of reported cases, deaths and monthly Case Fatality Rate (CFR), Earthquake Affected Areas, Pakistan, 20 Jan - 16 Feb 2007.

Week	WEEK 04		WEEK 05		WEEK 06		WEEK 07		TOTAL		CFR%
Event	C	D	C	D	C	D	C	D	C	D	
AWD	4343	0	3173	0	3308	2	3155	0	13979	2	0.014
BD	315	0	226	0	255	0	237	0	1033	0	0.000
AFP	0	0	2	0	0	0	1	0	3	0	0.000
MAL	239	0	166	0	115	0	97	0	617	0	0.000
ARI	25434	11	18194	6	20833	3	17453	10	81914	30	0.037
MES	0	0	1	0	1	0	0	0	2	0	0.000
MEN	6	0	7	2	6	1	2	0	21	3	14.286
JAU	50	0	15	0	34	1	31	0	130	1	0.769
TET	0	0	0	0	0	0	0	1	0	1	0.000
AHF	0	0	0	0	0	0	0	0	0	0	0.000
FUO	6097	0	4443	0	5625	0	3394	0	19559	0	0.000
INJ	3976	0	3006	0	3394	2	2475	0	12851	2	0.016
OTH	54593	14	34898	16	42202	9	35304	12	166997	51	0.031
TOTAL	95053	25	64131	24	75773	18	62149	23	297106	90	
RU	309		302		300		267				

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 **75,645** consultations were reported in the **less than 5 years old** group, (**25%** of the total consultations), of which **37%** (28,207) were due to **ARI**, **9%** (6,493) due to **AWD**, **7%** (5,509) due to **FUO** and **3%** (2,344) 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 20 Jan - 16 Feb 2007.

Week	WEEK 04		WEEK 05		WEEK 06		WEEK 07		TOTAL		CFR%
Event	C	D	C	D	C	D	C	D	C	D	
AWD	1955	0	1425	0	1586	2	1527	0	6493	2	0.031
BD	99	0	83	0	78	0	79	0	339	0	0.000
AFP	0	0	2	0	0	0	1	0	3	0	0.000
MAL	39	0	27	0	15	0	19	0	100	0	0.000
ARI	8605	8	6343	5	7512	2	5747	9	28207	24	0.085
MES	0	0	1	0	0	0	0	0	1	0	0.000
MEN	1	0	2	2	1	1	0	0	4	3	75.000
JAU	2	0	2	0	5	0	4	0	13	0	0.000
TET	0	0	0	0	0	0	0	1	0	1	0.000
AHF	0	0	0	0	0	0	0	0	0	0	0.000
FUO	1759	0	1148	0	1637	0	965	0	5509	0	0.000
INJ	672	0	580	0	620	0	472	0	2344	0	0.000
OTH	10036	3	7008	6	8620	5	6968	3	32632	17	0.052
TOTAL	23168	11	16621	13	20074	10	15782	13	75645	47	
RU	309		302		300		267				

In the current week, there was a decrease in the number of cases of **AWD** with **3,308** last week and **3,155** this week. In the current week, **ARI** also decreased in the total number of cases as compared with the previous week, (**20,833** last week and **17,453** this week). The weekly proportion of ARI and AWD is shown in figure 4.

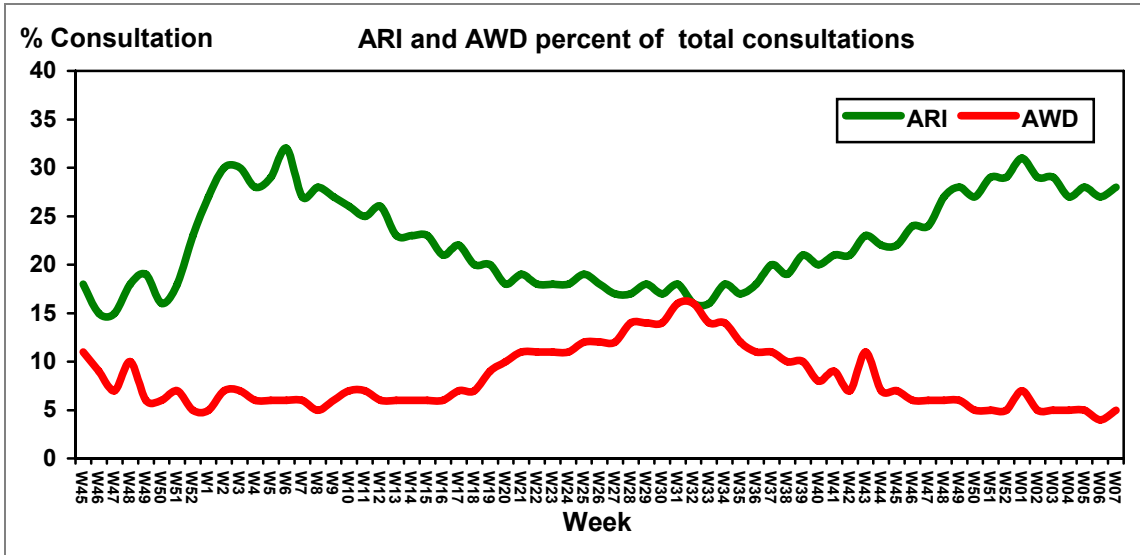


Figure 4. Weekly trend of percent of consultations for ARI and AWD, Earthquake Affected Areas, Pakistan, 5 November 2005 – 16 Feb 2007.

Acute Watery Diarrhoea

In week 7 there were 3,155 cases of AWD, a negligible decrease from week 6. There were no associated deaths. In most districts the rate of AWD has been steady since the early weeks of 2007, with the exception of Poonch district where there has been a large increase in week 7. See Figure 5.

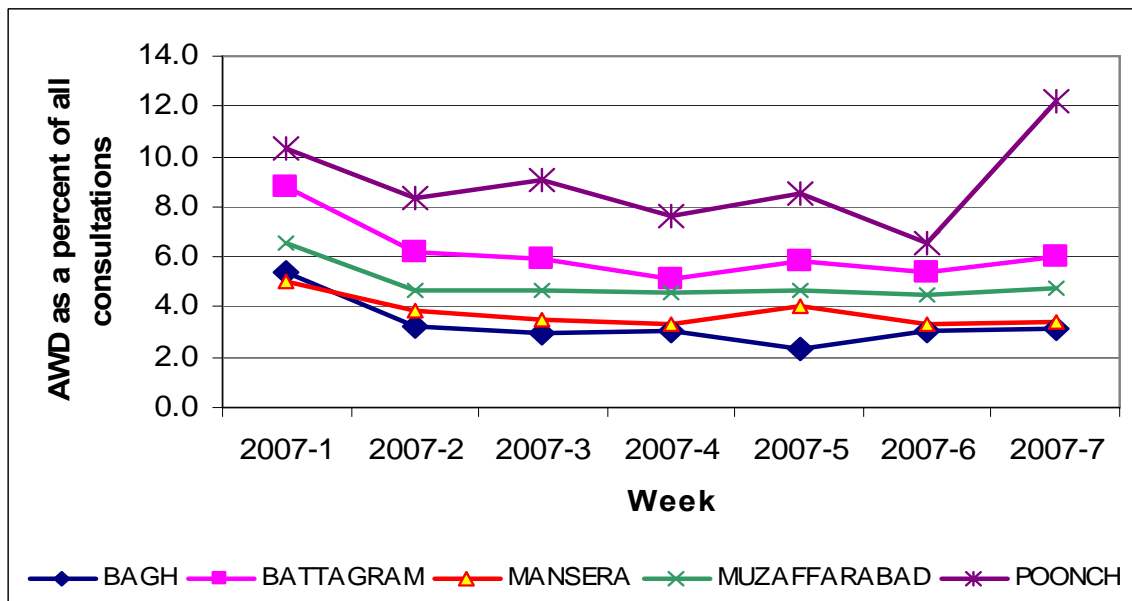


Figure 5: AWD as a percent of all consultations, by district, Earthquake Affected Areas, Pakistan, 30 December 2006 – 16 February 2007

Bloody Diarrhoea

In week 7, there were 237 cases of bloody diarrhoea reported, a 7% decrease over week 6. There were no associated deaths. The rate of bloody diarrhoea has been lower in 2007 than that seen in 2006, though the rates have almost converged. See figure 6

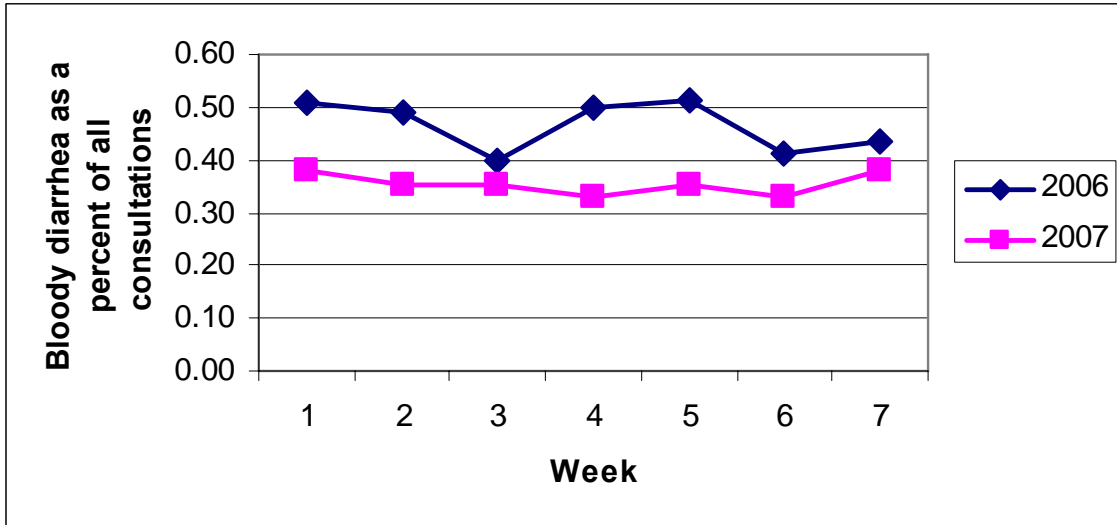


Figure 6: Bloody diarrhoea as a percent of all consultations, 2006 and 2007, Earthquake Affected Areas, Pakistan, 31 December 2005 – 17 February 2006 and 30 December 2006 – 16 February 2007

Acute Jaundice Syndrome

In week 7 there were 31 cases of suspected hepatitis, 9% less than the number of cases in the previous week. There were no associated deaths. Though the rate of suspected hepatitis directly after the earthquake was relatively high, it has since settled into a relatively constant rate. See figure 7.

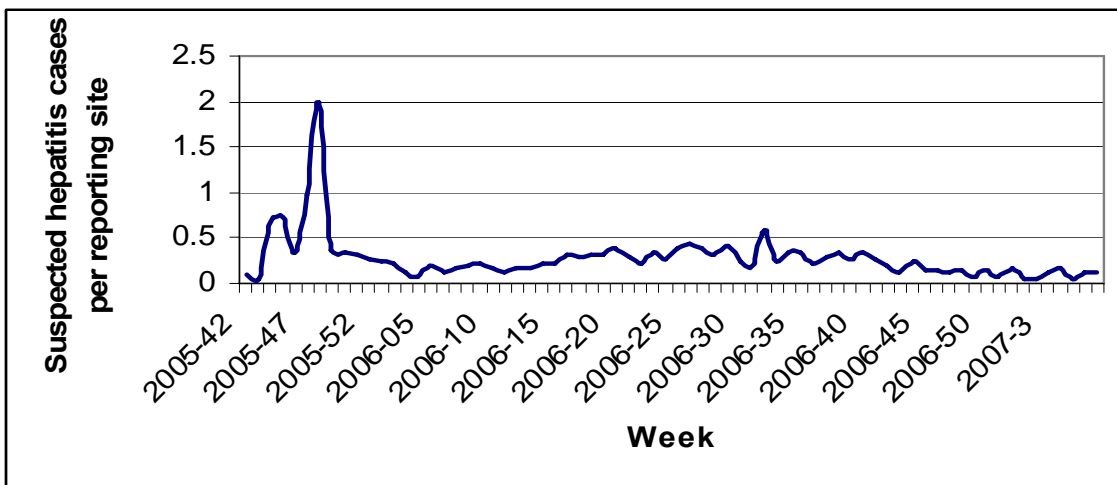


Figure 7: Trend in suspected hepatitis per reporting site, by district, Earthquake Affected Areas, Pakistan, 15 October 2005– 16 February 2007

Malaria

In week 7, there were 97 malaria cases reported, a decline of 16% from week six. There were no associated deaths. The rate of malaria in 2007 was initially higher than that of 2006, but has dropped steadily, while in the same weeks of 2006 the rate rose. The rate of 2007 is now lower than that of 2006. See figure 8.

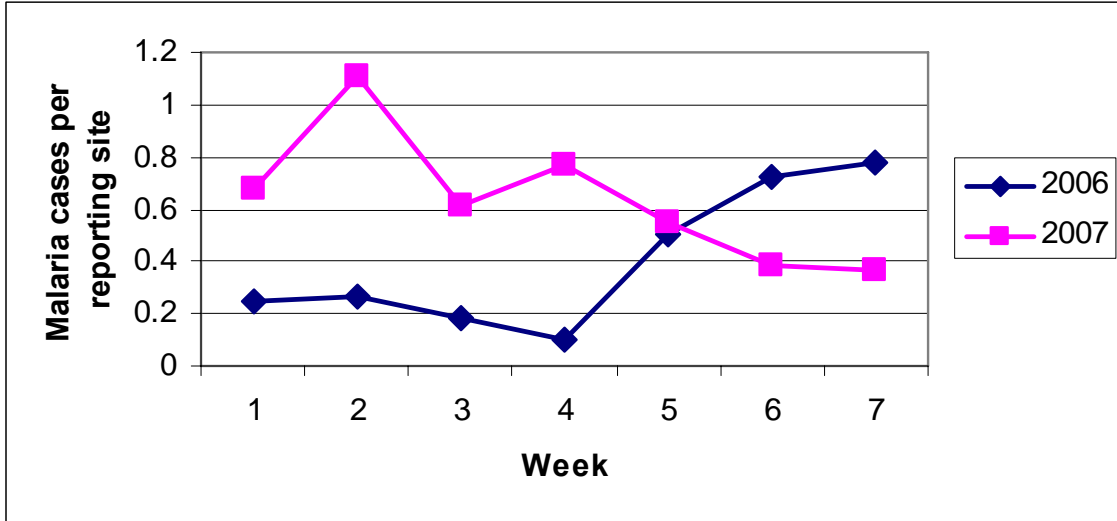


Figure 8: Trend in malaria cases per reporting site, 2006 and 2007, Earthquake Affected Areas, Pakistan, 31 December 2005 – 17 February 2006 and 30 December 2006 – 16 February 2007

Measles

There was no case of measles reported in week 7. 2007 has had far fewer cases of measles than in the same weeks of 2006. In the seven weeks of 2007, there have been three weeks with no measles cases reported. See figure 9.

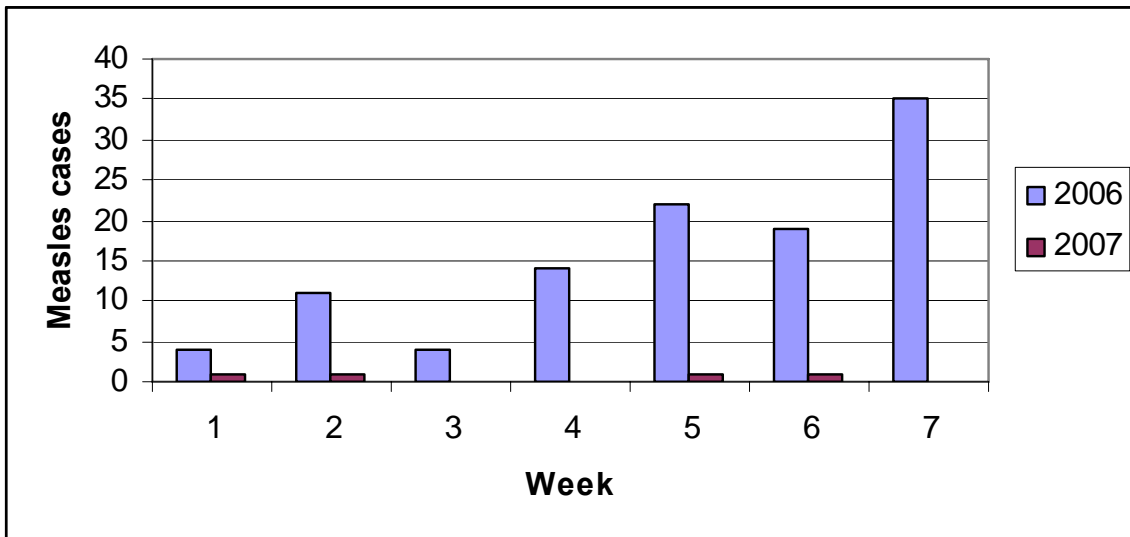


Figure 9: Measles cases by week and year, Earthquake Affected Areas, Pakistan, 31 December 2005 – 17 February 2006 and 30 December 2006 – 16 February 2007

Acute Respiratory Infection

In week 7, there were 17,453 consultations for ARI reported through the DEWS. There were ten associated deaths, 6 in under fives at Mansehra district, and 2 patients under five years of age in Muzaffarabad, and two death reported from Bagh district one under and one over five years of age. The rate of ARI in most districts has been relatively steady since the beginning of 2007. Muzaffarabad has the highest rate, and Bagh had the lowest rate, but has seen a slight increase in the last two weeks. See Figure 10.

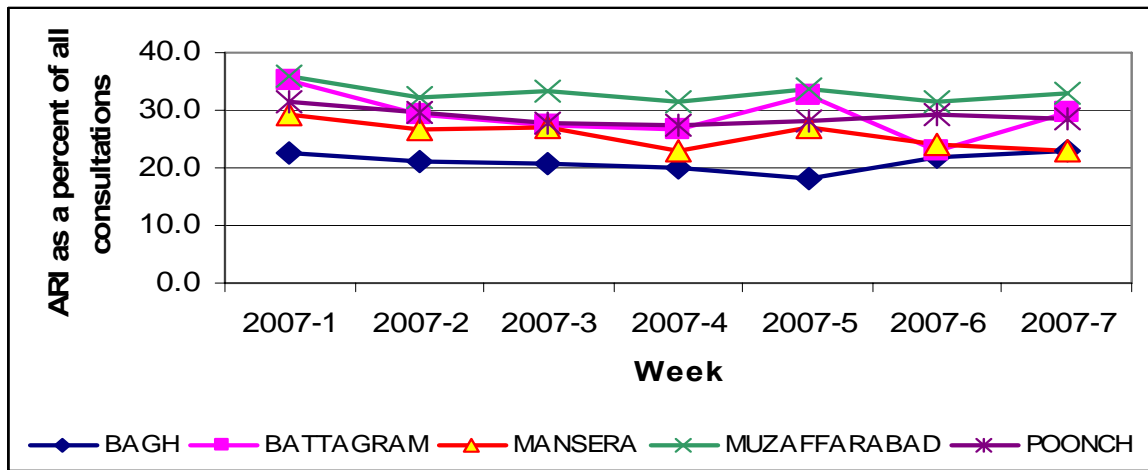


Figure 10: Trend in ARI as a percent of all consultations, by district, Earthquake Affected Areas, Pakistan, 10 – 17 February 2007

Other Reportable Diseases and Conditions

There were 2 cases of suspected meningitis in week 7 reported from district Muzaffarabad. There were 3,394 cases of fever of unknown origin, and 2,475 cases of injuries. There was one case of acute flaccid paralysis reported from Mansehra district. There were no cases of tetanus or haemorrhagic fever reported in week 7.

Unexplained fever is usually a diagnosis of last resort. The rate of unexplained fever has remained relatively stable in most districts. In Poonch district however the rate has climbed over time, and may represent a reluctance to diagnose conditions such as malaria without lab confirmation. See figure 11.

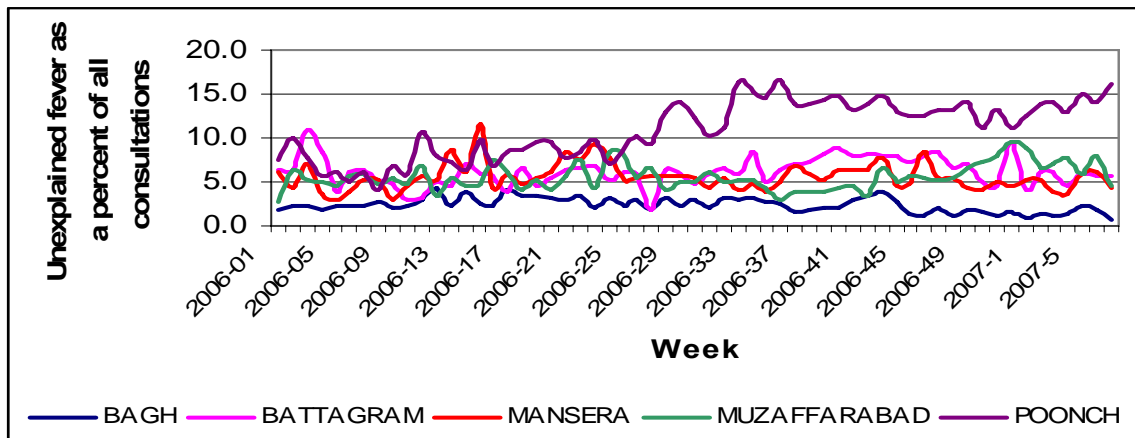


Figure 11: Trend in unexplained fever as a percent of all consultations, Earthquake Affected Areas, Pakistan, 15 October 2005 – 16 February 2007

Outbreak Alert and Response¹

Meningitis

Muzaffarabad

Two cases of suspected meningitis were reported from AIMS hospital. Of the two, one had abnormal CSF, and the sample was sent to NIH for confirmation.

Acute Flaccid Paralysis

Mansehra

One case of acute flaccid paralysis was reported from DHQ hospital on 13th February. The patient, a 42 month old girl from Shirqi Kulhara, UC Tanda, developed symptoms on 10th February and was admitted to hospital. A sample was taken on 13th February. She has since fully recovered, and was diagnosed as having arthritis.

Malaria

Mansehra

15 cases of suspected malaria were reported from Ad-Dawa Field Hospital. On investigation, it was found that the cases came from different areas, with no clustering, and samples taken had been negative.

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, 10 - 16 Feb 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
04	400	0	25	0	0	0	3	0	2646	2	0	0	0	0	3	0	0	0	0	0	188	0	697	0	9314	4
05	254	0	17	0	0	0	0	0	1980	2	0	0	0	0	0	0	0	0	0	0	236	0	515	0	7872	7
06	254	0	12	0	0	0	6	0	1818	0	0	0	0	0	3	0	0	0	0	0	156	0	475	0	5549	2
07	173	0	12	0	0	0	4	0	1268	2	0	0	0	0	1	0	0	0	0	0	43	0	234	0	3818	2
Total	1081	0	66	0	0	0	13	0	7712	6	0	0	0	0	7	0	0	0	0	0	623	0	1921	0	26553	15

Table 7. Number of reported cases and deaths, **Poonch District**, Earthquake Affected Areas, Pakistan, 10 - 16 Feb 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
04	1157	0	19	0	0	0	189	0	4165	0	0	0	0	0	1	0	0	0	0	0	1965	0	672	0	6987	0
05	1022	0	13	0	0	0	120	0	3346	2	1	0	1	1	0	0	0	0	0	0	1783	0	535	0	5128	1
06	643	0	4	0	0	0	66	0	2856	1	0	0	0	0	1	0	0	0	0	0	1389	0	436	0	4398	1
07	761	0	6	0	0	0	39	0	1778	0	0	0	0	0	1	0	0	0	0	0	1008	0	244	0	2415	1
Total	3583	0	42	0	0	0	414	0	12145	3	1	0	1	1	3	0	0	0	0	0	6145	0	1887	0	18928	3

Table 8. Number of reported cases and deaths, **Muzaffarabad District**, Earthquake Affected Areas, Pakistan, 10 - 16 Feb 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
04	1620	0	216	0	0	0	22	0	11184	2	0	0	6	0	13	0	0	0	0	0	2720	0	1931	0	17650	2
05	1025	0	151	0	0	0	23	0	7381	1	0	0	4	1	4	0	0	0	0	0	1277	0	1326	0	10620	5
06	1358	2	165	0	0	0	21	0	9638	1	1	0	5	1	2	1	0	0	0	0	2445	0	1793	2	15050	2
07	1160	0	134	0	0	0	13	0	7994	2	0	0	2	0	4	0	0	0	0	0	1115	0	1242	0	12557	7
Total	5163	2	666	0	0	0	79	0	36197	6	1	0	17	2	23	1	0	0	0	0	7557	0	6292	2	55877	16

Number of reported cases and deaths per District, NWFPTable 9. Number of reported cases and deaths, **Battagram District**, Earthquake Affected Areas, Pakistan, 10 - 16 Feb 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
04	363	0	42	0	0	0	21	0	1893	0	0	0	0	0	29	0	0	0	0	0	330	0	225	0	4201	2
05	232	0	30	0	0	0	8	0	1289	0	0	0	0	0	6	0	0	0	0	0	229	0	144	0	2013	1
06	369	0	47	0	0	0	8	0	1574	0	0	0	1	0	24	0	0	0	0	0	387	0	187	0	4216	1
07	401	0	42	0	0	0	26	0	1979	0	0	0	0	0	18	0	0	0	0	0	380	0	212	0	3596	0
Total	1365	0	161	0	0	0	63	0	6735	0	0	0	1	0	77	0	0	0	0	0	1326	0	768	0	14026	4

Table 10. Number of reported cases and deaths, **Mansehra District***, Earthquake Affected Areas, Pakistan, 10 - 16 Feb 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
04	803	0	13	0	0	0	4	0	5546	7	0	0	0	0	4	0	0	0	0	0	894	0	451	0	16441	3
05	640	0	15	0	2	0	15	0	4192	1	0	0	0	0	5	0	0	0	0	0	918	0	486	0	9249	2
06	683	0	27	0	0	0	14	0	4947	1	0	0	0	0	4	0	0	0	0	0	1248	0	503	0	12989	3
07	660	0	43	0	1	0	15	0	4434	6	0	0	0	0	7	0	0	1	0	0	848	0	543	0	12918	2
Total	2786	0	98	0	3	0	48	0	19119	15	0	0	0	0	20	0	0	1	0	0	3908	0	1983	0	51597	10