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Shelter in this winter season is still a problem for some EQ affectees
Photo by Torgrim Halvari



Highlights

- In the past month (Epidemiological weeks 50-1 inclusive), 128,299 health events under surveillance were reported including 83 deaths
- This week, there were 280 reporting units contributing to the report.
- In week 1, Total 48,119 consultations were reported, with 13 deaths
- There were no cases of measles reported in any districts in week 1 of 2007
- Acute jaundice syndrome cases have decreased by 65% for the second week in a row
- ARI rates are generally higher in week 1 of 2007 than they were in week 1 of 2006

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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WHO Webpage: <http://www.whopak.org/disaster>

Reporting Units

The number of sites able to report increased by ten this week. With Eid ul-Azha now over, it is expected that the number of reporting units will return to a normal level in the following weeks. See Table 1 for summary statistics.

Table 1. Reported health facilities by district, Earthquake Affected Areas, Pakistan, 09 Dec -05 Jan.

Area	Population	Reporting Health Facilities			
		09-15 Dec	16-22 Dec	23-29 Dec	30 Dec -05 Jan
		Week 50	Week 51	Week 52	Week 1
Muzaffarabad	894,364	100	87	82	82
Bagh	452,532	45	42	32	32
Poonch	633,712	70	63	67	67
Mansehra / Balakot	1,154,804	64	56	61	61
Battagram / Shangla	592,256	40	36	28	28
Total	3,727,668	319(99%)	284 (88 %)	270 (84 %)	280 (87 %)

Total number of consultations

In week 01 there was an increase in the number of reporting sites, but the number of consultations decreased to 48,111. The highest number of consultations by district was in Muzaffarabad, with 16,920 and the lowest was in Battagram, at 3,280.

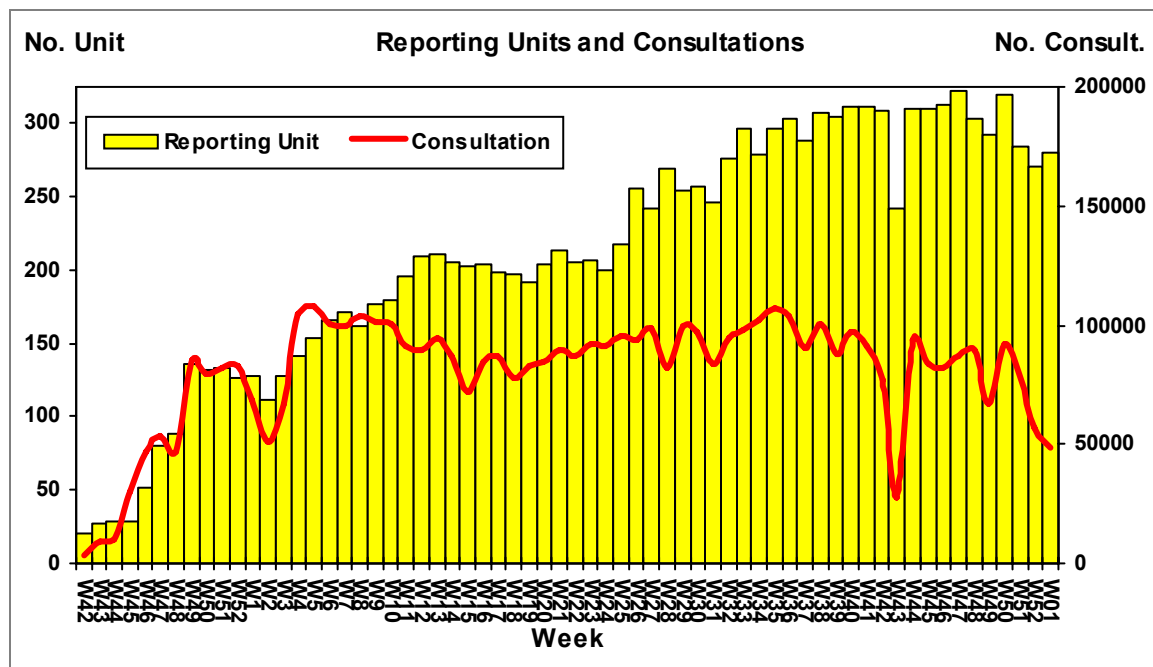


Figure 1. Weekly trend of reporting units and total number of consultations, Earthquake Affected Areas, Pakistan, 15 October 2005 – 05 January 2007.

DEWS Data, Epidemiological Week No. 01, 2007

Between 30 December and 05 January 2007, **48,119** consultations were reported through DEWS. Overall, **31%** (14,864) were due to acute respiratory infections (**ARI**), 2 percentage points higher than the rate in week 1 of 2006. **6%** of consultations (3,353) were due to acute watery diarrhoea (**AWD**), **6%** (3,582) due to fever of unknown origin (**FUO**), and **4%** (2,574) 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 is higher in week 1 of 2007 than it was in week 1 of 2006, at **39%** and **32%** respectively. At **26%** of consultations in patients 5 or more years old, the rate of ARI is substantially the same in this age group as the rate seen in this week last year. All other reportable conditions each represented less than 2 % of the total consultations in week 52.

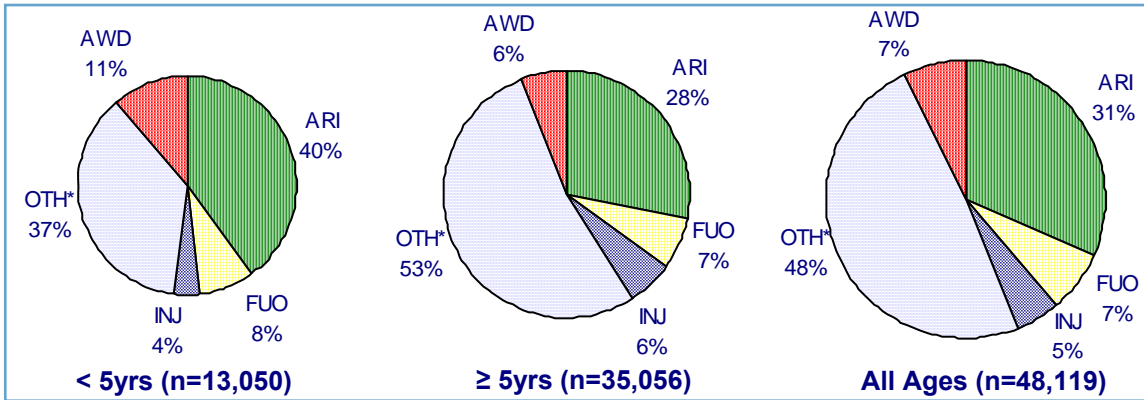


Figure 2. Proportion of primary causes for all reported cases, Earthquake Affected Areas, Pakistan, 30 Dec – 5 Jan2007.

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

DEWS Data, Epidemiological Week No. 01, 2007: Consultations by age

The winter of 2006-2007 has been harsher than that of 2005-2006. Not surprisingly, the rate of ARI in patients under five is also higher in all of the districts in week 1 of 2007 vs week 1 of 2006. The smallest difference is in Bagh district, where the rate is 2 percentage points higher. The largest difference is in Muzaffarabad, where the rate is approximately 11 percentage points higher. See figure 3.

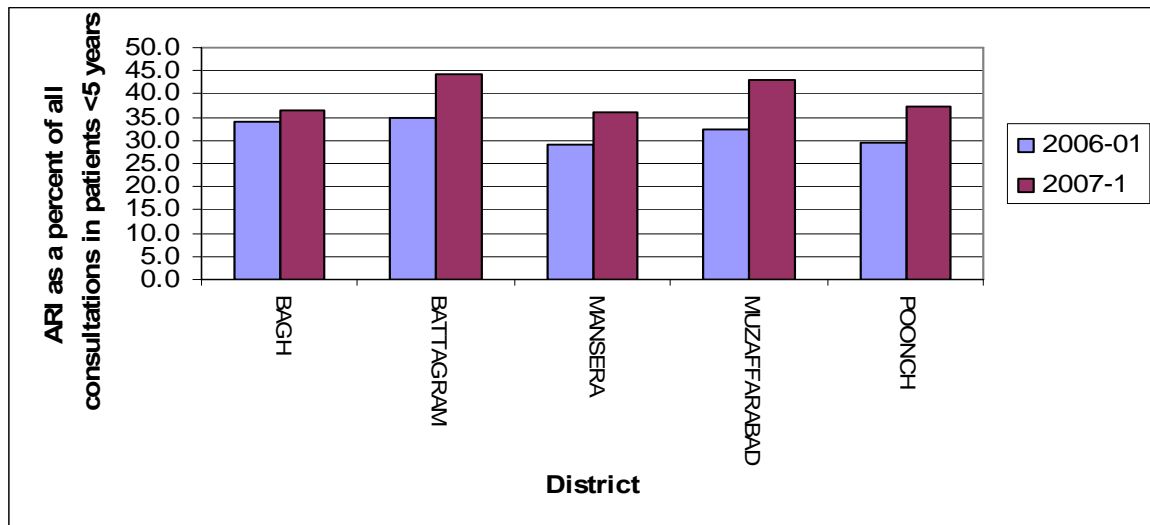


Figure 3: ARI as a percent of all consultations in children under 5, by district, Earthquake Affected Areas, Pakistan 31 December 2005 – 5 January 2006 and 30 December 2006 – 5 January 2007

DEWS Data, Monthly Summary (Epidemiological Weeks No. 50-01)

In the past four weeks, between 9 Dec – 5 Jan 2007 (Epidemiological weeks 50-01 inclusive), 128,299 consultations for health conditions under surveillance were reported, out of a total 277,581 consultations. **35%** (80,266) of consultations were due to acute respiratory infection (**ARI**), **6%** (15,400) acute watery diarrhoea (**AWD**), **6%** (17,316) unexplained fever (**FUO**) and **5%** (12,719) injuries (**INJ**).

Table 2. Comparison of the weekly distribution of reported cases, deaths and monthly Case Fatality Rate (CFR), Earthquake Affected Areas, Pakistan, 9 Dec – 5 Jan 2007.

Week	WEEK 50		WEEK 51		WEEK 52		WEEK 01		TOTAL		CFR%
Event	C	D	C	D	C	D	C	D	C	D	
AWD	5011	1	4020	1	3016	0	3353	1	15400	3	0.019
BD	371	0	240	0	232	0	207	0	1050	0	0.000
AFP	3	0	1	0	0	0	0	0	4	0	0.000
MAL	478	0	376	0	312	0	231	0	1397	0	0.000
ARI	25013	7	23391	7	16998	8	14864	5	80266	27	0.034
MES	8	0	0	0	3	0	0	0	11	0	0.000
MEN	7	0	7	0	2	0	4	0	20	0	0.000
JAU	42	1	23	0	37	1	13	0	115	2	1.739
TET	1	1	1	1	0	0	0	0	2	2	100.00
AHF	0	0	0	0	0	0	0	0	0	0	0.000
FUO	5494	0	5247	0	2993	0	3582	0	17316	0	0.000
INJ	4014	0	3690	1	2441	0	2574	0	12719	1	0.008
OTH	51871	10	42371	18	31749	13	23291	7	149282	48	0.032
TOTAL	92312	20	79367	28	57783	22	48119	13	277581	83	
RU	319		284		270		280				

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 **73,474** consultations were reported in the **less than 5** years old group, (**26%** of the total consultations), of which **39%** (28,403) were due to **ARI**, **10%** (6,984) due to **AWD**, **7%** (5,023) due to **FUO** and **3%** (2,452) 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 9 Dec – 5 Jan 2007.

Week	WEEK 50		WEEK 51		WEEK 52		WEEK 01		TOTAL		CFR%
Event	C	D	C	D	C	D	C	D	C	D	
AWD	2360	1	1819	1	1403	0	1402	0	6984	4	0.057
BD	116	0	72	0	71	0	49	0	308	1	0.325
AFP	1	0	1	0	0	0	0	0	2	0	0.000
MAL	61	1	39	0	44	0	38	0	182	1	0.549
ARI	8881	6	8454	6	5902	7	5166	5	28403	13	0.046
MES	5	0	0	0	3	0	0	0	8	0	0.000
MEN	1	0	2	0	1	0	0	0	4	0	0.000
JAU	8	1	7	0	6	1	3	0	24	2	8.333
TET	0	0	1	1	0	0	0	0	1	0	0.000
AHF	0	0	0	0	0	0	0	0	0	0	0.000
FUO	1538	0	1515	0	919	0	1051	0	5023	0	0.000
INJ	735	0	783	0	459	0	475	0	2452	0	0.000
OTH	10335	7	8680	5	6202	5	4866	1	30083	18	0.060
TOTAL	24041	16	21373	13	15010	13	13050	6	73474	39	
RU	319		284		270		280				

In the current week, there was an increase in the number of cases of **AWD** with **3,016** last week and **3,353** this week. In the current week, **ARI** decreased in the total number of cases as compared with the previous week, (**16,998** last week and **14,864** this week). The weekly proportion of ARI and AWD is shown in figure 4.

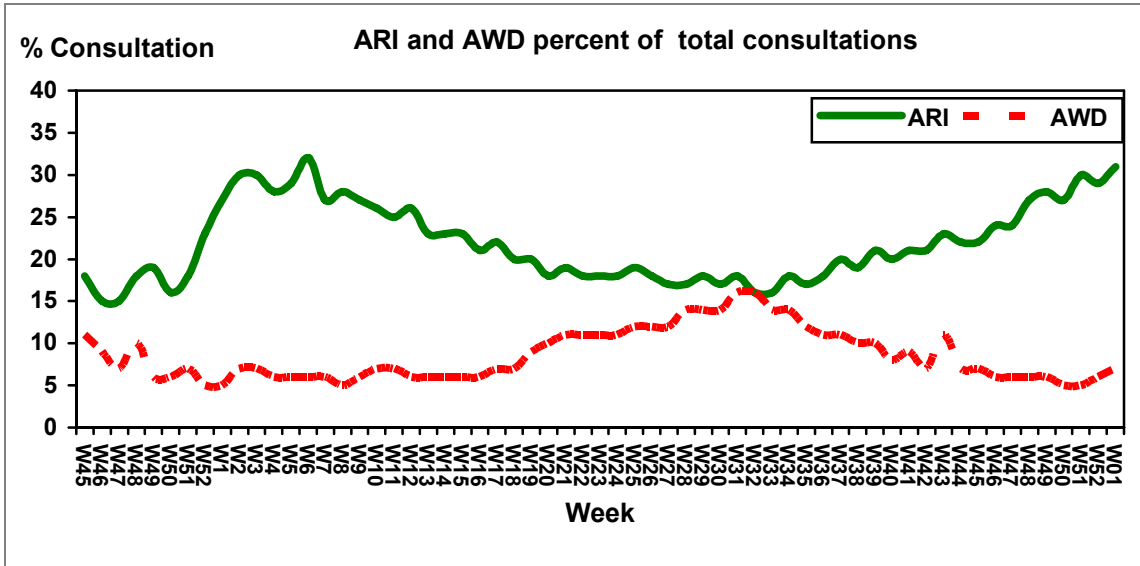


Figure 4. Weekly trend of percent of consultations for ARI and AWD, Earthquake Affected Areas, Pakistan, 5 November 2005 – 5 Jan 2007.

Acute Watery Diarrhoea

In week 01 there were 3,353 cases of AWD reported, with one associated death in a patient five years or over in Muzaffarabad. In week 1, the rate of AWD rose in all districts. Trends will have to be watched in the coming weeks to see whether this represents a sustained increase. See Figure 5.

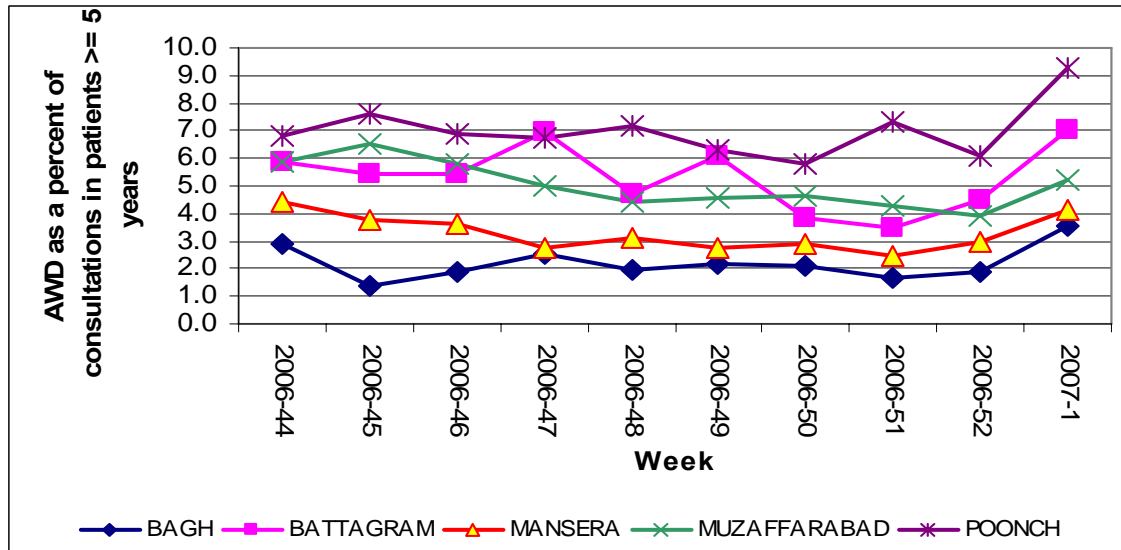


Figure 5: Trend in AWD as a percent of all consultations, by district, Earthquake Affected Areas, Pakistan, 28 October 2006 – 5 January 2007

Bloody Diarrhoea

In week 1, there were 207 cases of bloody diarrhoea reported, a decrease over week 52. There were no associated deaths. The rate of bloody diarrhoea has usually been higher in patients under five years old, however in week 1, the rate in patients five and over surpassed that of the younger age group. See figure 6

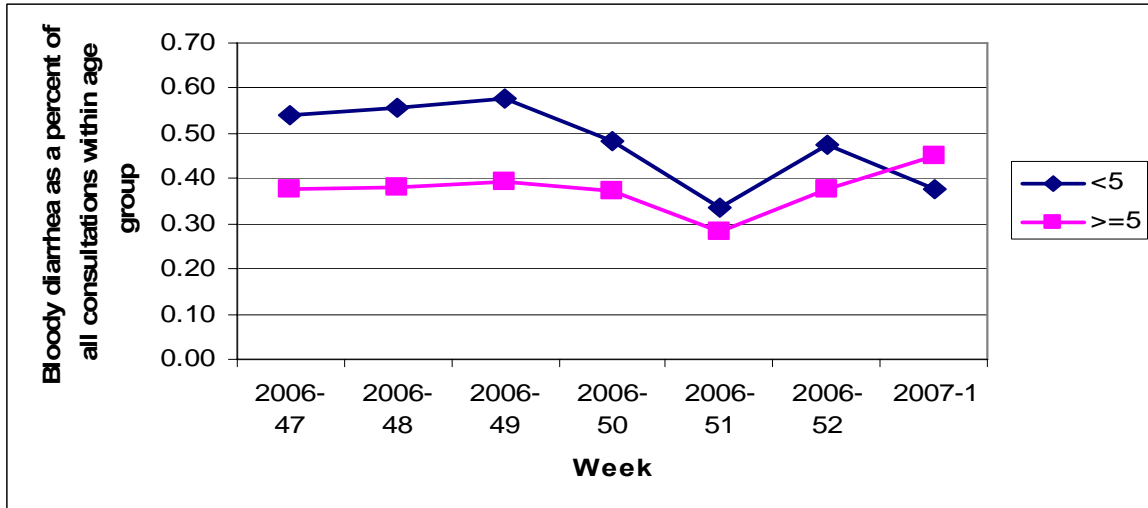


Figure 6: Trend in bloody diarrhoea as a percent of all consultations, by age group, 18 November 2006 – 5 January 2007

Acute Jaundice Syndrome

In week 1 there were 13 cases of suspected hepatitis, only one-third the number of cases in the previous week. There were no associated deaths. Earlier in the winter, Muzaffarabad had the highest number of cases of acute jaundice syndrome, however Mansehra recently had a large increase in cases. Bagh has consistently had the lowest number of cases. See figure 7.

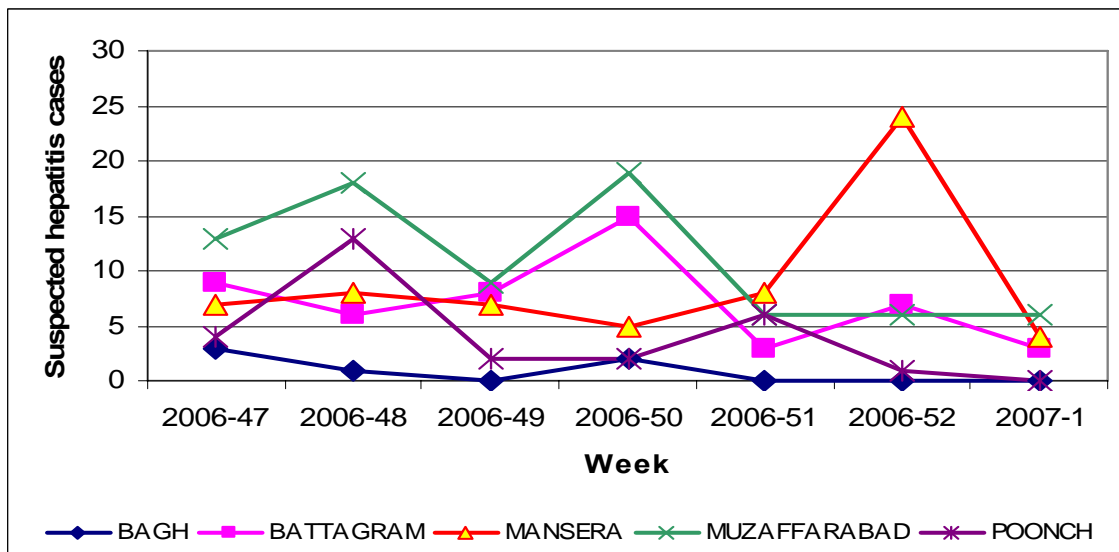


Figure 7: Trend in cases of suspected hepatitis, by district,, Earthquake Affected Areas, Pakistan, 18 November 2006 – 5 January 2007

Malaria

In week 1, there were 231 malaria cases reported, with no associated deaths. Malaria rates peaked in June, and have been falling since. See figure 8.

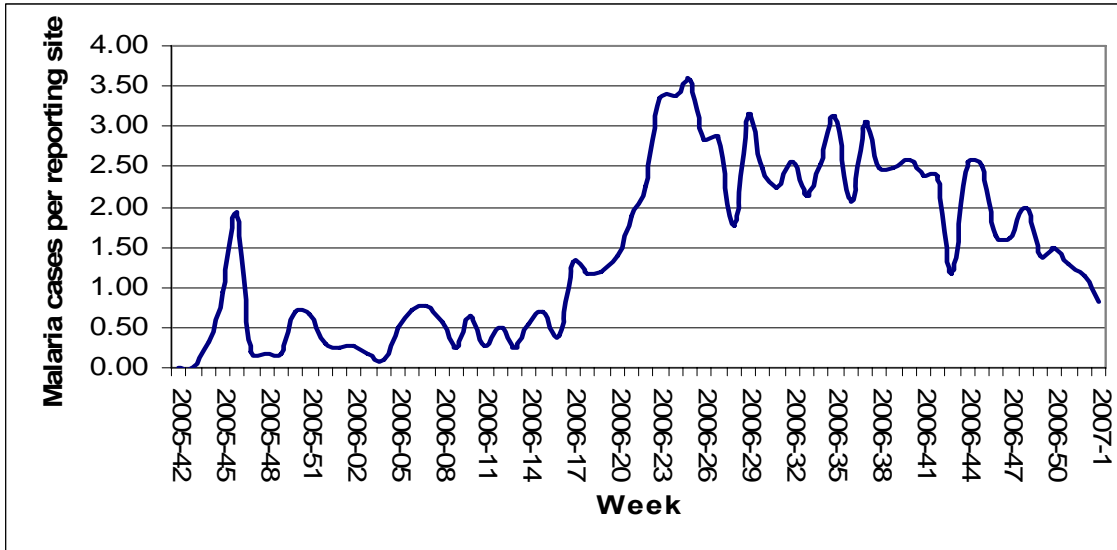


Figure 8: Trend in malaria cases per reporting site, Earthquake Affected Areas, Pakistan, 15 October 2005 – 5 January 2007

Measles

There were no cases of measles reported in week 1. Since the beginning of reporting, almost half of the measles cases have been reported from Muzaffarabad district. The lowest number of cases has been reported from Poonch district, with only 13. See figure 9.

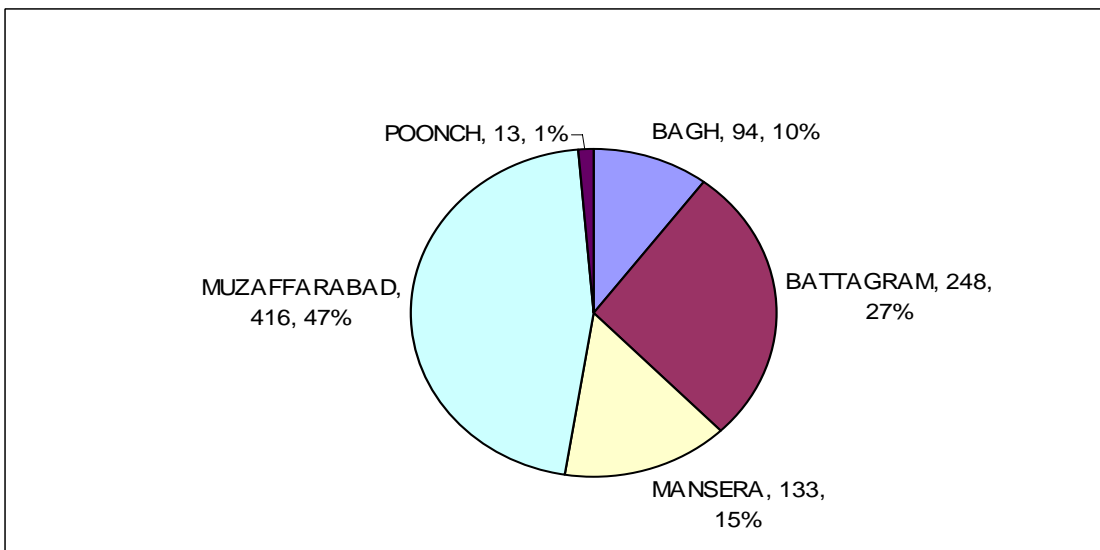


Figure 9: Proportion and number of measles cases by district, Earthquake Affected Areas, Pakistan, 15 October 2005 – 5 January 2007

Acute Respiratory Infection

In week 1, there were 14,864 consultations for ARI reported through the DEWS. There were five associated deaths, 3 in Mansehra and 2 in Muzaffarabad, all in patients under five years old. The rate of ARI in week 1 of 2007 is higher than that of week 1 of 2006 for all districts but Bagh, which has seen a decrease. The largest increase is in Poonch district, which has a rate ten percentage points higher in 2007 than that seen in the same week of 2006. See figure 10

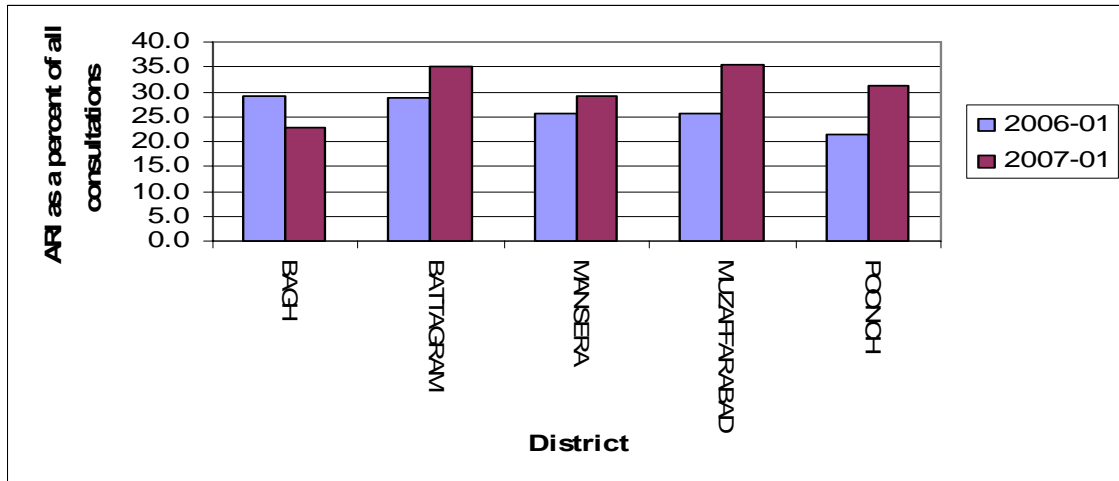


Figure 10: ARI as a percent of consultations, by district, Earthquake Affected Areas, Pakistan, Pakistan 31 December 2005 – 5 January 2006 and 30 December 2006 – 5 January 2007

Other Reportable Diseases and Conditions

There were 4 cases of suspected meningitis in week 1, all in Muzaffarabad, in patients five years or over. There were no cases of acute flaccid paralysis, tetanus, or hemorrhagic fever. There were 3,582 cases of fever of unknown origin, and 2,574 injuries.

Though there have been many reports of meningitis in recent weeks, the rate as expressed in cases per reporting site is lower than that seen in many weeks of 2006. It is also important to note that of samples tested for suspected meningitis, only 10% have been positive, therefore there is a high rate of misdiagnosis of this condition. See figure 11.

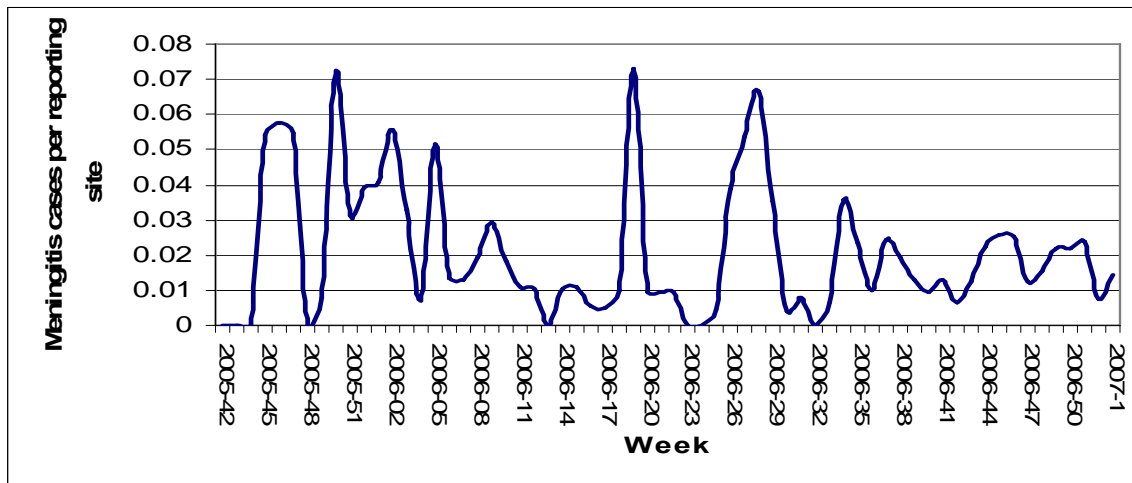


Figure 11: Meningitis cases per reporting site, Earthquake Affected Areas, Pakistan, 15 October 2005 – 5 January 2007

Outbreak Alert and Response¹

Acute Jaundice:

Bagh

An alert for two cases of suspected hepatitis was received from BHU Rangla in week 1. On investigation, the first case was found to be chronic hepatitis C. The second case had signs and symptoms of acute viral hepatitis. The cases were not related, and did not share a water source. There were no other cases in the community, which consisted of 28 houses. A follow-up visit to the community will be made next week to ensure that no new cases are present.

Hypothermia:

Bagh

A local newspaper ran a story claiming that a death due to hypothermia had taken place in Dhulli field hospital on the 2nd of January. On investigation, it was found that the victim had swallowed rat poison, and had died of this poisoning, not hypothermia.

Measles

Bagh

An alert for 6 cases of measles was received from RHC Dhirkot. On investigation it was found to be a typographical error, and there were no cases.

Meningitis

Mansehra

4 cases of meningitis have been reported from AIMS hospital. The investigation is underway.

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, 30 Dec – 5 Jan2007.

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	
50	555	0	44	0	0	0	10	0	3442	0	0	0	0	0	2	0	0	0	0	0	253	0	672	0	10995	0	
51	400	0	27	0	0	0	3	0	3411	0	0	0	0	0	0	0	0	0	0	192	0	551	0	10842	6		
52	378	0	32	0	0	0	6	0	2573	0	0	0	0	0	0	0	0	0	0	179	0	573	0	8060	6		
01	542	0	20	0	0	0	2	0	2274	0	0	0	0	0	0	0	0	0	0	91	0	466	0	6649	4		
Total	1875	0	123	0	0	0	21	0	11700	0	0	0	0	0	2	0	0	0	0	0	0	715	0	2262	0	36546	16

Table 7. Number of reported cases and deaths, **Poonch District**, Earthquake Affected Areas, Pakistan, 30 Dec – 5 Jan2007.

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
50	1080	0	32	0	0	0	304	0	4537	1	0	0	0	0	2	0	0	0	0	0	1691	0	688	0	6835	3
51	925	0	21	0	0	0	263	0	3529	3	0	0	0	0	6	0	0	0	0	0	1577	0	562	0	5018	2
52	906	0	29	0	0	0	213	0	3969	1	0	0	0	0	1	0	0	0	0	0	1405	0	608	0	5523	2
01	980	0	24	0	0	0	157	0	2987	0	0	0	0	0	0	0	0	0	0	0	1195	0	462	0	3716	1
Total	3891	0	106	0	0	0	989	0	15022	5	0	0	0	0	9	0	0	0	0	0	5868	0	2320	0	21092	8

Table 8. Number of reported cases and deaths, **Muzaffarabad District**, Earthquake Affected Areas, Pakistan, 30 Dec – 5 Jan2007.

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
50	1869	1	211	0	2	0	128	0	9680	6	2	0	6	0	18	1	0	0	0	0	2205	0	1992	0	14474	3
51	1661	0	130	0	0	0	88	0	9405	1	0	0	7	0	6	0	1	1	0	0	2252	0	2007	0	12899	6
52	916	0	106	0	0	0	25	0	5235	2	0	0	1	0	5	1	0	0	0	0	383	0	766	0	7444	0
01	1125	1	130	0	0	0	58	0	6015	2	0	0	4	0	6	0	0	0	0	0	1730	0	1276	0	6573	0
Total	5571	2	577	0	2	0	299	0	30335	11	2	0	18	0	35	2	1	1	0	1	6570	0	6041	0	41390	9

Number of reported cases and deaths per District, NWFPTable 9. Number of reported cases and deaths, **Battagram District**, Earthquake Affected Areas, Pakistan, 30 Dec – 5 Jan2007.

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
50	593	0	46	0	0	0	16	0	2149	0	5	0	0	0	15	0	0	0	0	0	414	0	230	0	4720	0
51	361	0	37	0	0	0	3	0	2060	0	0	0	0	0	3	0	0	0	0	0	296	0	195	0	2149	3
52	220	0	32	0	0	0	5	0	839	0	0	0	1	0	7	0	0	0	0	0	348	0	114	0	2157	1
01	289	0	19	0	0	0	11	0	1156	0	0	0	0	0	3	0	0	0	0	0	134	0	113	0	1555	1
Total	1463	0	134	0	0	0	35	0	6204	0	5	0	1	0	28	0	1	0	0	0	1192	0	652	0	10581	5

Table 10. Number of reported cases and deaths, **Mansehra District***, Earthquake Affected Areas, Pakistan, 30 Dec – 5 Jan2007.

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
50	914	0	38	0	1	0	20	0	5205	0	1	0	1	0	5	0	0	1	0	0	931	0	432	0	14843	4
51	673	1	25	0	1	0	19	0	4986	3	0	0	0	0	8	0	0	0	0	0	930	0	375	1	11433	1
52	596	0	33	0	0	0	63	0	4382	5	3	0	0	0	24	0	0	0	0	0	678	0	380	0	8561	4
01	416	0	14	0	0	0	3	0	2427	3	0	0	0	0	4	0	0	0	0	0	432	0	257	0	4797	1
Total	2599	2	110	0	2	0	105	0	17000	11	4	0	1	0	41	0	0	1	0	0	2971	0	1444	1	39634	10