

Contents

Reporting Units	2
Total number of consultations	2
DEWS Data, Epidemiological Week No. 10, 2008	3
DEWS Data, (Epidemiological Weeks No. 7 – 10, 2008)	4
Acute Diarrhoea and suspected Cholera	6
Malaria	7
Upper Respiratory Infection and Lower respiratory Infection: ..	8
Other Conditions under Surveillance:	9
Outbreak Alert and Response	10
Number of reported cases and deaths per District, AJK	11
Number of reported cases and deaths per District, NWFP ...	12

Muzaffarabad: WHO Field officers providing health education during an AJS Outbreak in Village Chandira
Picture by: Kashif Jan



Highlights

- The overall trend of the water borne disease is steady over the last 4 week, and when compared to same weeks last year the trend is lower in 2008.
- Trend of Suspected Malaria cases in district Bagh and Battagram has slightly increased this week
- An Acute Hepatitis E outbreak reported from district Muzaffarabad
- The suspected case of Acute Flaccid Paralysis reported from District Bagh was declared misdiagnosis after investigation.

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 site in the Earthquake affected districts remains 335 as of week 10, 2008. During this week 278 (83%) sites sent a weekly DEWS report on the due time. The proportion of reporting remains almost consistent for the last four weeks. Table 1, summarises reporting by each earthquake affected district for the last 4 weeks.

Table1. Heath Facilities by district, reported from Earthquake Affected Areas, Pakistan, 1-7Mar 2008.

Area	Population	Reporting Health Facilities			
		9-15 Feb 08 Week-07	16-22 Feb 08 Week-08	23-29 Feb 08 Week-09	1-7 Mar 08 Week-10
Bagh	452,532	38	37	37	37
Battagram	592,256	34	37	35	33
Mansehra	1,154,804	60	59	58	60
Muzaffarabad	770,000	71	65	66	66
Neelum	184,000	16	10	16	15
Poonch	633,712	62	71	67	67
Total	3,727,668	281(84%)	279(83%)	279(83%)	278(83%)

Total number of consultations

Total 63,472 patient consultations were reported for week 10. The number of units reported during the week was dropped by one this week as compared to week 9 (279 and 278 units respectively) and the total number of consultations reported through DEWS were decreased by 13% as compared to last week. This week district Mansehra reported the highest proportion (26%) and Neelum reported still lowest proportion (4%) of the total consultation reported for all the Earthquake affected districts. Figure 1 showing the trend of weekly reporting units participating in the DEWS and the total number of weekly consultations reported.

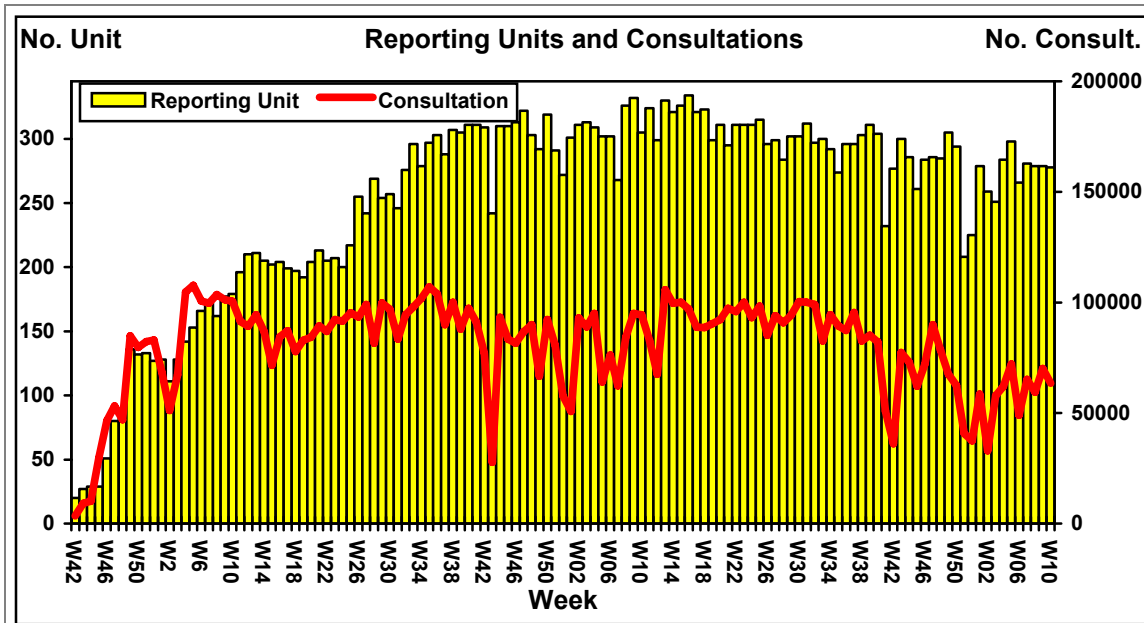


Figure 1. Weekly trend of reporting units and total number of consultations, Earthquake Affected Areas, Pakistan, 15 October 2005 – 7 Mar 2008.

DEWS Data, Epidemiological Week No. 10, 2008

During the Epidemiological week 10 (1 -7 March, 2008), total **63,472** consultations were reported through DEWS. Distribution of the consultations by age groups show that **18%** of the patients were children under five years of age, **19%** in the 5 to 15 years age group **43%** in 15 to 45 years age and **19%** above 45 years age group. **Fifty five percent (55%)** of the reported consultations were females and **45%** were male patients. Acute Upper Respiratory Tract Infections (**URTI**) is the highest reported disease in all age groups. In children less than five years age, Acute Diarrhoea is the second and Lower Respiratory Tract Infection (**LRTI**) is the third common reason of consultation (9% and 8% respectively). In 5 to 15 years age group Lower Respiratory Tract Infection (LRTI) Acute Diarrhoea (**AD**), Unexplained Fever (**UF**) and Scabies are the reported cause of consultation all placed at second position (6%) each. Almost a similar distribution of consultation by diseases is seen in both the adult age groups also with a little variation. Health events, other than the reportable diseases in DEWS, are making a large proportion of consultation in all age groups. See Figure 2.

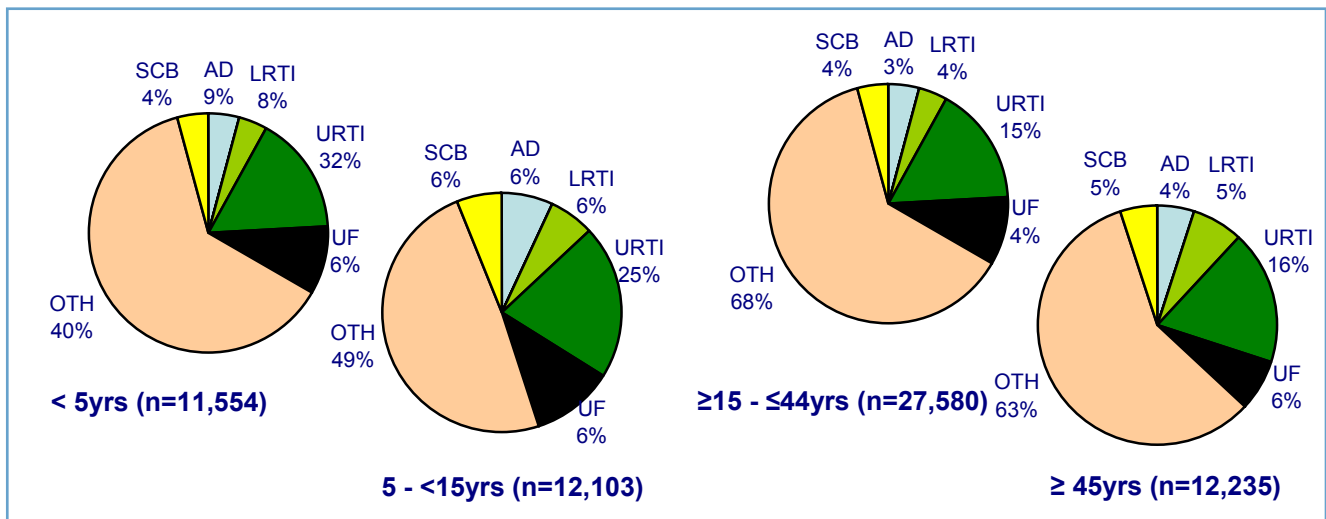


Figure 2. Proportion of primary causes for all reported cases, Earthquake Affected Areas, Pakistan, 1 –7 March 2008. *OTH includes all other reportable conditions, plus all other consultations for conditions not under surveillance

During week 10, out of the total **63,472** reported consultations through DEWS, 58% (37,080) in all ages and both sex were for health problems other than the 5 most common diseases reported. Among the Five most common reported diseases the proportion for URTI is 20% and 5% each for LRTI, Acute Diarrhoea, Unexplained Fever and Scabies, reported in both sexes and in all age groups. Out of 28,318 consultations of male patients 22% were for URTI and 6% each for LRTI, AD, Unexplained fever and scabies. For the 35,154 female patients 19% consultations were for URTI. ALRTI and UF 5% each and AD and Scabies 4% each were reported for female patients of all ages. In 61% of female patients and 55% of male patients health events other than the above mentioned 5 common diseases. See Figure 3.

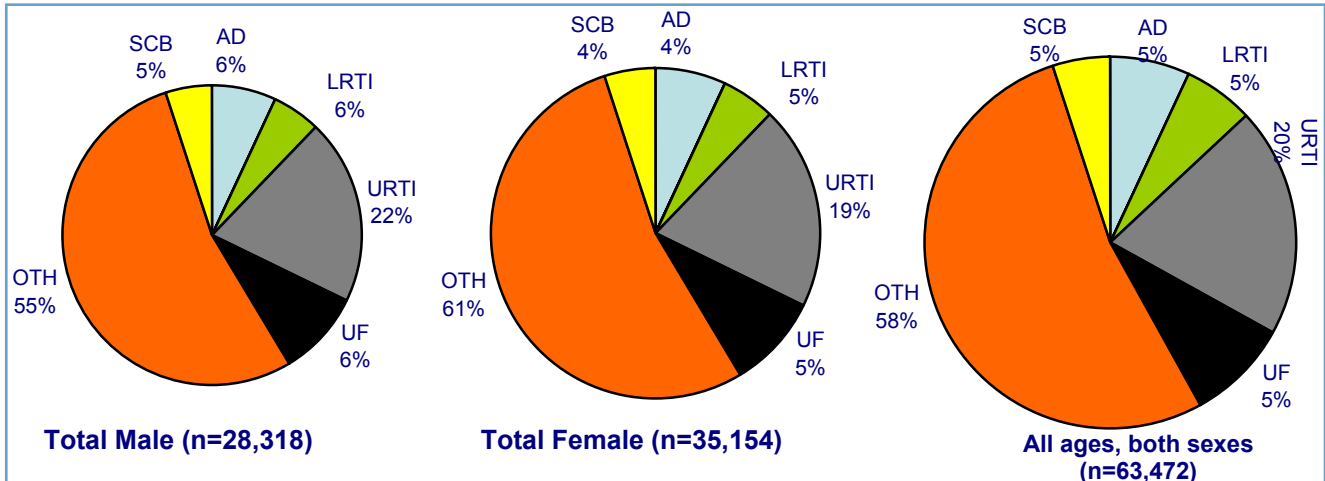


Figure 3. Proportion of primary causes for all reported cases, Earthquake Affected Areas, Pakistan, 1 – 7 Feb 2008.
 *OTH includes all other reportable conditions, plus all other consultations for conditions not under surveillance

Week No. 10, 2008: Consultations by gender

In week 10, there were 3,225 acute diarrhoea cases reported, out of which 52% cases were male and 48% cases were female. As compared with the last week, the ratio of acute diarrhoea has slightly decreased in both genders. See Figure 4.

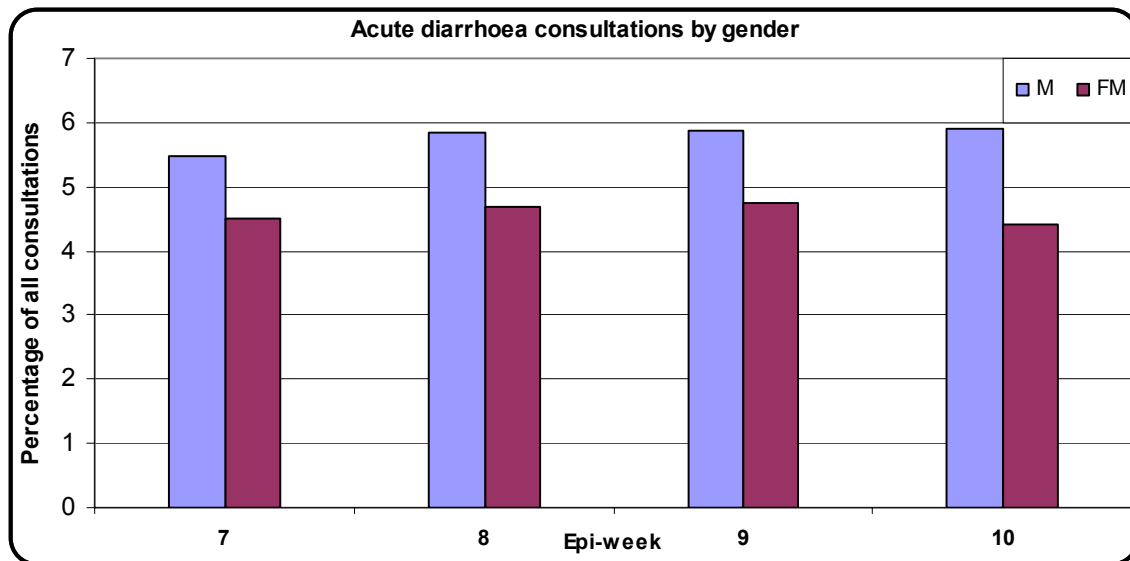


Figure 4: Acute diarrhoea as percentage of all consultations by gender, Earthquake Affected Areas, Pakistan, 1- 7 Mar 2008

DEWS Data, (Epidemiological Weeks No. 7 – 10, 2008)

During the period 9 Feb - 7 Mar, 2008 (Epidemiological weeks 7 to 10, 2008 inclusive), 113,367 consultations out of the total 261,173 consultations for the same period were reported for health conditions under weekly surveillance in the Earthquake affected areas. The trend of (percentage of total consultations) of the five common diseases under surveillance has remained almost the same since last week. **22%** (57,793) of consultations were due to upper respiratory infection

(URTI), 6% (16,647) due to unexplained fever (UF), 6% (14,714) lower respiratory infection, 5% (13,400) acute diarrhoea (AD), and 5% (12,315) due to scabies (SCB).

Table 2. Comparison of the weekly distribution of reported cases, deaths and monthly Case Fatality Rate (CFR), Earthquake Affected Areas, Pakistan, 9 Feb – 7 Mar 2008.

Week Event	WEEK 07		WEEK 08		WEEK 09		WEEK 10		TOTAL		CFR%
	C	D	C	D	C	D	C	D	C	D	
AD	3226	0	3097	1	3852	0	3225	0	13400	1	0.007
AFP	1	0	1	0	1	0	1	0	4	0	0.000
AJS	17	0	12	0	10	0	31	0	70	0	0.000
BD	185	0	198	0	154	0	206	0	743	0	0.000
LRTI	3804	2	3640	3	3844	0	3426	0	14714	5	0.034
MAL	187	0	122	0	158	0	205	0	672	0	0.000
MG	1	1	0	0	1	0	0	0	2	1	50.000
MS	0	0	0	0	1	0	0	0	1	0	0.000
NNT	1	0	0	0	0	0	0	0	1	0	0.000
OTH	35588	18	32501	22	39642	22	37080	1	144811	63	0.044
SCB	3136	0	3028	0	211	0	2945	0	9320	0	0.000
UF	3611	0	3528	0	6148	0	3360	0	16647	0	0.000
URTI	15399	0	13280	1	16121	0	12993	0	57793	1	0.002
Total Cons.	65156	21	59407	27	70143	22	63472	1	258178	71	
RU	281		279		279		278				

The percentage of acute diarrhoea (AD) cases remains the same since week 04 of 2008. There was 1% decrease in ARI (lower and upper respiratory tract infection) cases since last week. From week 4, 2008 onwards there is consistent overall declining trend for Acute Respiratory Infections. The percentages are consistent with the percentage of same period last year for ARI and AD. The weekly proportion of ARI (URTI plus LRTI) and AD is shown in figure 6.

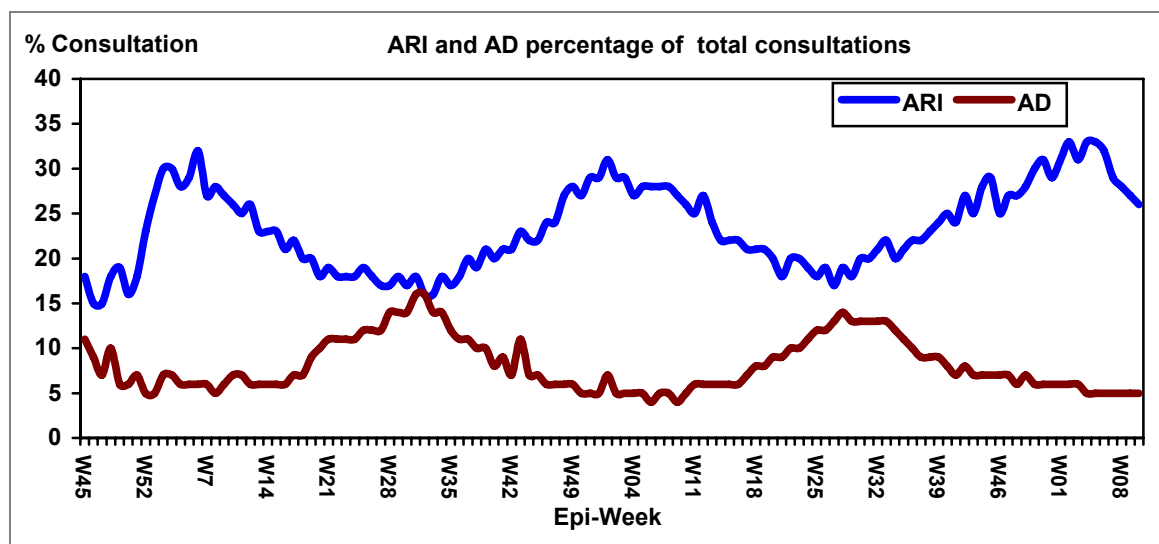


Figure 6. Weekly trend of percent of consultations for ARI and AWD, Earthquake Affected Areas, Pakistan, 15 October 2005 – 7 Mar 2008.

Acute Diarrhoea and suspected Cholera

During week 10 of 2008, there were 3,225 cases (5% of total consultations in the current week) of AD reported, out of which 9% cases were reported in patients less than 5 years of age group, 6% in patients 5 – 14 years old, 3% in patients 15 – 44 years of age and 4% in patients 45 years and over age group. No death reported due to AD reported from any district during the last week. There were no cases of suspected cholera reported from any district. The rate of acute diarrhoea differs by age group, with the highest rate seen in patients less than 5 years of age group (9%), while adult 15-44 age groups have lowest rate (3%). In the last four weeks, the trend for diarrhoea is steady with minor fluctuation in children less than 5 years age. See Figure 7.

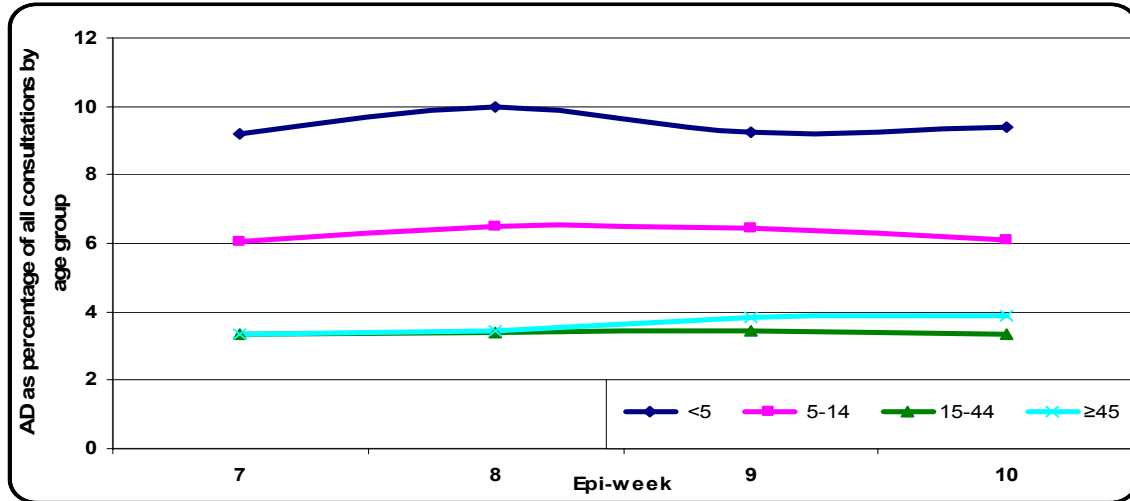


Figure 7: Trend in Acute diarrhoea as a percent of all consultations, by age group, Earthquake Affected Areas, Pakistan, 9 Feb -7 Mar 2008

Bloody Diarrhoea

During week 10 of 2008, there were 206 cases of bloody diarrhoea reported. There were no associated deaths reported from any district. The percentage of bloody diarrhoea differs by age group, with the highest percentage rate seen in patients 5-14 years of age group, while adult (15-44 years age group) having lowest rate. The overall proportion of reported Bloody Diarrhoea is very small for all the weekly consultations and there is a little weekly fluctuation which is not significant. See Figure 8.

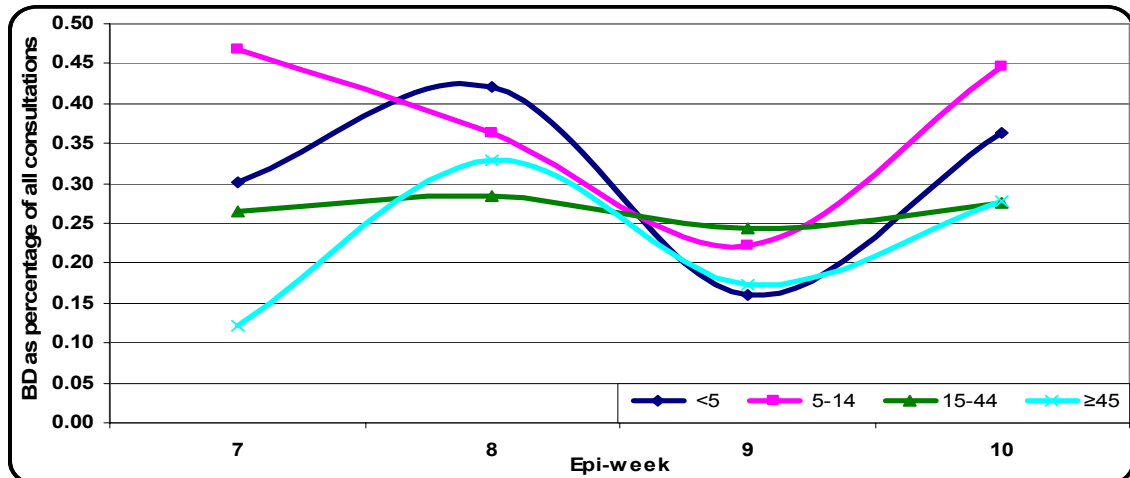


Figure 8: Bloody Diarrhoea percentage of all consultations, by age group, Earthquake Affected Areas, Pakistan, 9 Feb to 7 Mar 2008

Acute Jaundice Syndrome

In week 10 of 2008, there were 31 suspected cases of acute jaundice syndrome reported, out of which 21 suspected cases were reported from Battagram district (out of these 21 cases 11 were misdiagnose and excluded from the data for analysis), while 3 suspected cases reported from Neelum, 3 suspected cases were from Mansehra, 2 from Muzaffarabad and 1 each reported from Poonch and Bagh district. There was no associated death reported from any district. Comparison of the disease trend for Suspected AJIS for the corresponding weeks Of 2007 and 2008 shows that the proportion Of disease was lower for 2008 till week 9. In week 10 the proportion of AJIS almost touches the same level for both the years. See figure 9.

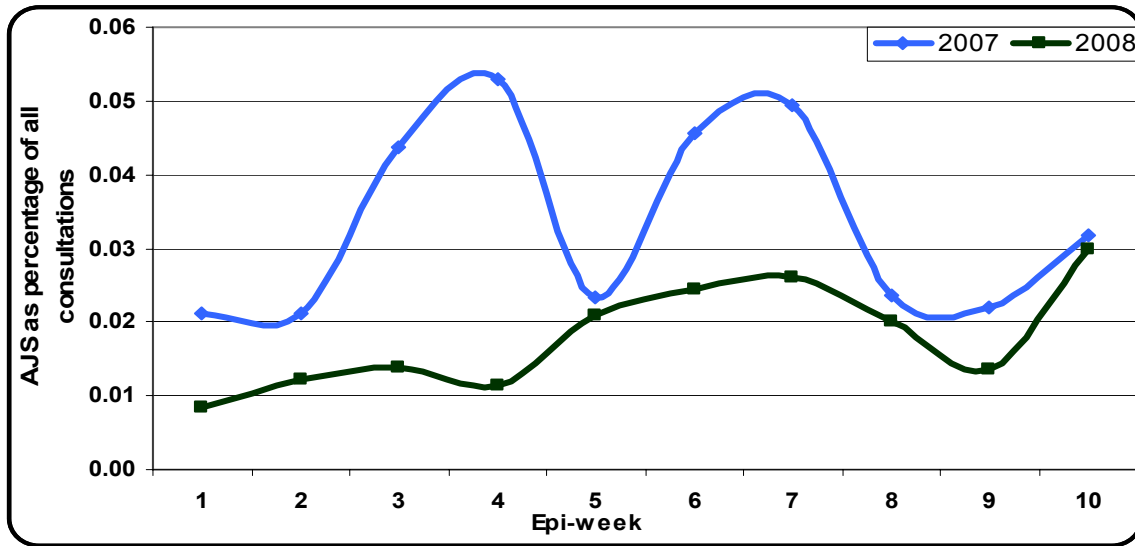


Figure 9: Acute jaundice syndrome as percentage of all consultations by year, Earthquake Affected Areas, Pakistan 30 Dec -6 Mar 2007 and 29Dec-7 Mar 2008

Malaria

In week 10 of 2008, there were 205 suspected cases of malaria reported. There were no associated deaths reported from any district. District Poonch remains the highest rate of suspected malaria. When compared with the same week of last year, the percentage of malaria in 2008 has been lower. District Muzaffarabad and Battagram have seen increasing in suspected malaria percentage in this week. See figure 10.

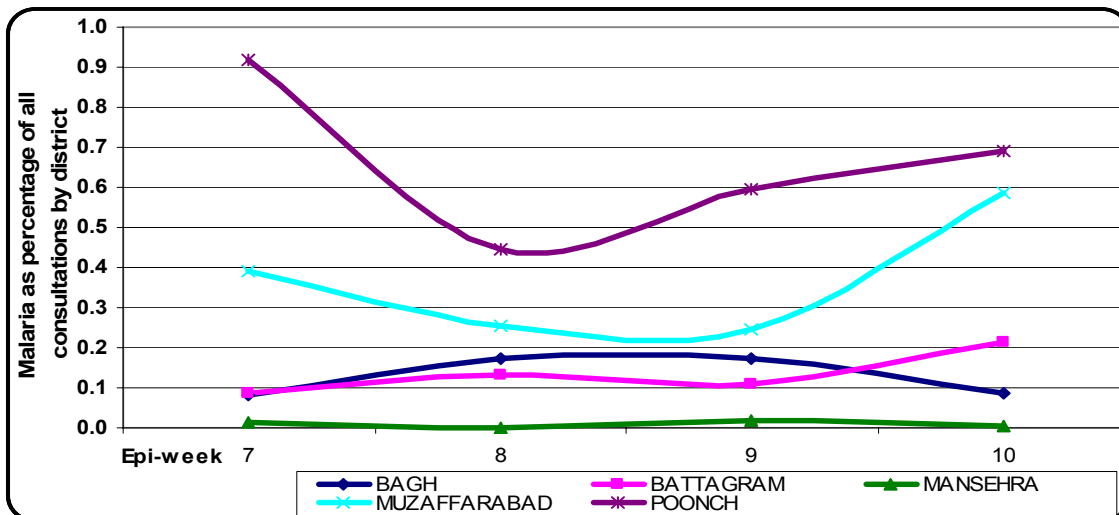


Figure 10: Malaria percentage of all consultations by district, Earthquake Affected Areas, Pakistan, 9 Feb- 7 Mar 2008

Measles

In this week, there was no suspected case of measles reported from any district. In the last 10 weeks of year 2008, there was only two measles case reported. However, when compared with the same period last year, the number of cases reported remains as low as half the cases reported last year. See Figure 11.

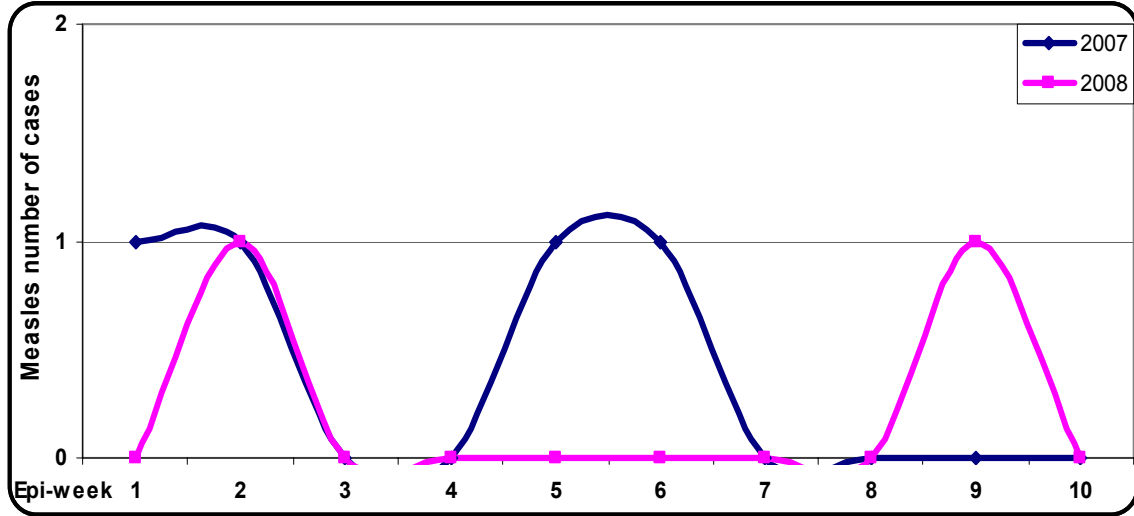


Figure 11: Trend in measles number of cases, Earthquake Affected Areas, Pakistan, 30 December 06 to 6 March 2007 and 29 Dec 07 to 7 March 2008.

Upper Respiratory Infection and Lower respiratory Infection:

In week 10 of 2008, there were 5% (3,426) consultations for Acute Lower Respiratory tract Infections and 20% (12,993) cases of Upper Respiratory tract Infections reported through the DEWS system. There is overall declining trend in ARI from week 7, 2008 onwards. Figure 2 showing a gradual weekly decline in both Upper (URTI) and Lower (LRTI) respiratory infection.

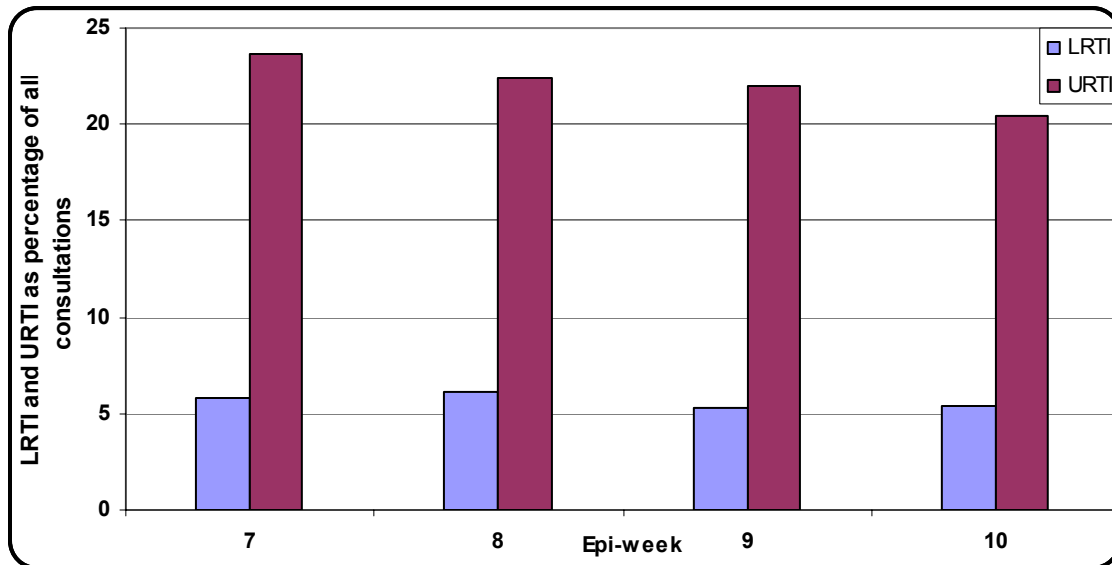


Figure 12: LRTI and URTI as percentage of all consultations, Earthquake Affected Areas, Pakistan, 9 Feb-7 Mar 2008

Other Conditions under Surveillance:

There were 2,945 (5%) cases of scabies and 3,360 (6%) cases of unexplained fever reported in this week, with no associated deaths reported from any district. The proportion of consultations for scabies remains steady over the last few weeks with a slight increase in week 10. There was one suspected case of Acute Flaccid Paralysis reported from Bagh district but after investigation it was declared as false reporting. No case of suspected Hemorrhagic Fever and suspected neonatal tetanus reported from any district for week 10.

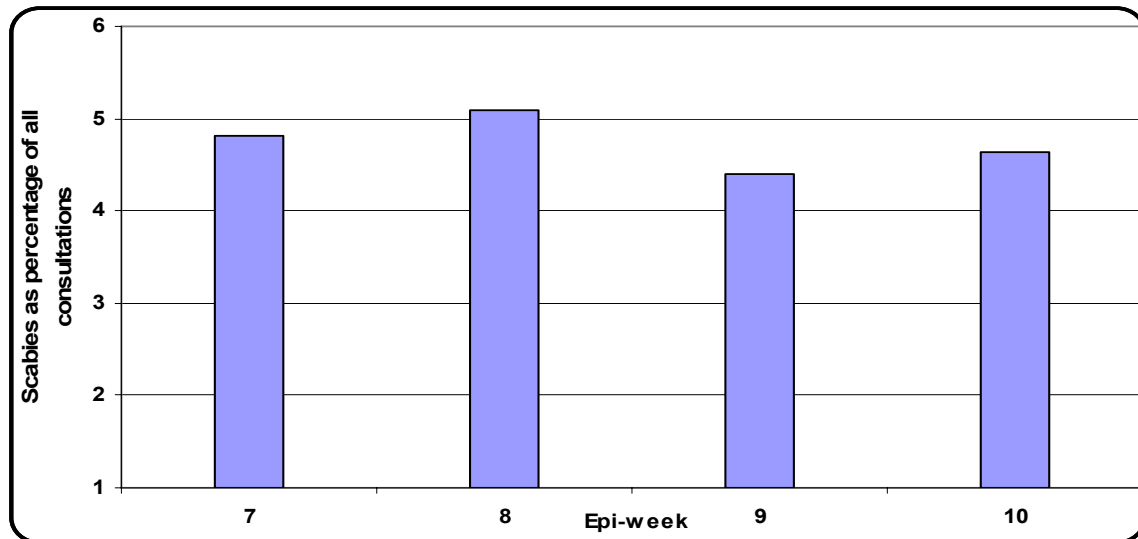


Figure 13: Scabies as a percent of all consultations, Earthquake Affected Areas, Pakistan, 9 Feb-7 March 2008

Outbreak Alert and Response¹

During the week 10, 2008 two alerts were received.

On 5th March, 2008 an alert for Acute Flaccid Paralysis (AFP) in a 12 days old child was received in district Bagh which was investigated by the WHO/DHO, DEWS team and confirmed that it was a misdiagnosis for a injury.

On 7th March, 2008, another alert for Acute Jaundice Syndrome (AJS) was received in village Chindira, Muzaffarabad, The WHO team in Muzfarabad did a through investigation for the alert. Through active Surveillance AJS cases were identified through household visits, Medical records at the hospital. The team assessed the WATSAN, environment and household hygiene thoroughly. Blood samples sent for Laboratory investigation confirmed the Hepatitis E antibody reactivity for six of six patients. The outbreak was confirmed and control measures initiated in collaboration with DoH Muzaffarabad, WHO, UNICEF, Save the Children UK and Merlin.

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 3. Number of reported cases and deaths, **Bagh District***, Earthquake Affected Areas, Pakistan, 1 - 7 Mar 2008.

Week	AD		SC		BD		AFP		LRTI		URTI		MAL		MS		MG		AHF		SCB		UF		AJS		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	C	D
07	340	0	0	0	9	0	0	0	175	0	1898	0	8	0	0	0	0	0	0	0	286	0	101	0	0	0	7107	3
08	414	0	0	0	15	0	0	0	175	0	1971	0	18	0	0	0	0	0	0	0	360	0	135	0	0	0	7407	4
09	435	0	0	0	11	0	0	0	149	0	1957	0	19	0	1	0	0	0	0	0	346	0	146	0	1	0	7881	6
10	365	0	0	0	15	0	1	0	147	0	1763	0	9	0	0	0	0	0	0	0	299	0	195	0	1	0	7656	1
Total	1554	0	0	0	50	0	1	0	646	0	7589	0	54	0	1	0	0	0	0	0	1291	0	577	0	2	0	30051	14

Table 4. Number of reported cases and deaths, **Poonch District***, Earthquake Affected Areas, Pakistan, 1 - 7 Mar 2008.

Week	AD		SC		BD		AFP		LRTI		URTI		MAL		MS		MG		AHF		SCB		UF		AJS		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	C	D
07	513	0	0	0	22	0	0	0	721	0	2319	0	85	0	0	0	0	0	0	0	492	0	874	0	3	0	4214	0
08	531	0	0	0	25	0	0	0	980	0	2728	0	50	0	0	0	0	0	0	0	645	0	1048	0	2	0	5253	0
09	521	0	0	0	12	0	0	0	823	0	2066	0	61	0	0	0	0	0	0	0	574	0	1116	0	1	0	5105	0
10	628	0	0	0	17	0	0	0	752	0	2272	0	71	0	0	0	0	0	0	0	559	0	1060	0	1	0	4925	0
Total	2193	0	0	0	76	0	0	0	3276	0	9385	0	267	0	0	0	0	0	0	0	2270	0	4098	0	7	0	19497	0

Table 5. Number of reported cases and deaths, **Muzaffarabad District***, Earthquake Affected Areas, Pakistan, 1 - 7 Mar 2008.

Week	AD		SC		BD		AFP		LRTI		URTI		MAL		MS		MG		AHF		SCB		UF		AJS		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	C	D
07	1167	0	0	0	84	0	0	0	2414	0	5909	0	85	0	0	0	1	1	0	0	1094	0	1113	0	2	0	9955	10
08	1055	0	0	0	101	0	0	0	1875	0	4429	1	45	0	0	0	0	0	0	0	881	0	961	0	2	0	8185	16
09	1599	0	0	0	68	0	0	0	2241	0	7064	0	66	0	0	0	0	0	0	0	945	0	3200	0	3	0	11688	16
10	964	0	0	0	106	0	0	0	1987	0	4589	0	107	0	0	0	0	0	0	0	926	0	351	0	5	0	9218	0
Total	4785	0	0	0	359	0	0	0	8517	0	21991	1	303	0	0	0	1	1	0	0	3846	0	5625	0	12	0	39046	42

Number of reported cases and deaths per District, NWFPTable 6. Number of reported cases and deaths, **Battagram District***, Earthquake Affected Areas, Pakistan, 1 - 7 Mar 2008.

Week	AD		SC		BD		AFP		LRTI		URTI		MAL		MS		MG		AHF		SCB		UF		AJS		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	C	D
07	618	0	0	0	61	0	1	0	212	0	2189	0	7	0	0	0	0	0	0	0	416	0	553	0	9	0	4101	0
08	571	0	0	0	52	0	0	0	189	0	1672	0	9	0	0	0	0	0	0	0	346	0	537	0	6	0	3554	0
09	701	0	0	0	60	0	0	0	165	0	2088	0	9	0	0	0	0	0	0	0	400	0	490	0	5	0	4305	0
10	578	0	0	0	61	0	0	0	159	0	1718	0	17	0	0	0	0	0	0	0	286	0	654	0	21	0	4414	0
Total	2468	0	0	0	234	0	1	0	725	0	7667	0	42	0	0	0	0	0	0	0	1448	0	2234	0	41	0	16374	0

Table 7. Number of reported cases and deaths, **Mansehra District***, Earthquake Affected Areas, Pakistan, 1 - 7 Mar 2008.

Week	AD		SC		BD		AFP		LRTI		URTI		MAL		MS		MG		AHF		SCB		UF		AJS		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	C	D
07	588	0	0	0	9	0	0	0	282	2	3084	0	2	0	0	0	0	0	0	0	848	0	970	0	3	0	10211	5
08	530	1	0	0	5	0	0	0	424	3	2499	0	0	0	0	0	0	0	0	0	796	0	849	0	2	0	8115	3
09	596	0	0	0	3	0	1	0	466	0	2946	0	3	0	0	0	1	0	0	0	946	0	1196	0	0	0	10663	0
10	690	0	0	0	7	0	0	0	381	0	2651	0	1	0	0	0	0	0	0	0	875	0	1100	0	3	0	10867	0
Total	2404	1	0	0	24	0	1	0	1553	5	11180	0	6	0	0	0	1	0	0	0	3465	0	4115	0	8	0	39856	8