

Epidemiological Week No. 20 (12 -18 May)

May 23/ Vol. 78/ DEWS 2007-20

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Abbaspur: Cleaning and Chlorination of drinking water tank.
Pictured by: Dr. Fawad



Highlights

- The number of bloody diarrhoea cases increased by 43% from week 19 to 20
- There was one death from suspected hepatitis reported in week 20, from Muzaffarabad district
- Malaria cases increased 40% from week 19 to 20
- Acute watery diarrhoea cases increased 11% from week 19 to 20
- ARI in patients under 5 is 6% higher than seen in week 20 of 2006
- One suspected measles was reported from Bagh district
- DHQ Mansehra has experienced a large increase in reported acute diarrhoea cases, however there are no patients with significant dehydration
- Alerts for suspected hepatitis were received from two out of the five districts
- Two alerts for acute watery diarrhoea were received from Bagh

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 reporting sites able to report this week was 291, a 3% decrease compared to the previous week, and reporting timeliness of the DEWS system has also decreased compared with last week.

See Table 1 for summary statistics.

Table 1. Reported health facilities by district, Earthquake Affected Areas, Pakistan, 21 April – 18 May 2007.

Area	Population	Reporting Health Facilities			
		21-27 April Week-17	28Apr-04May Week-18	5-11 April Week-19	12-18 May Week-20
Muzaffarabad	894,364	99	99	93	74
Bagh	452,532	37	38	36	37
Poonch	633,712	74	77	66	74
Mansehra / Balakot	1,154,804	73	73	68	70
Battagram / Shangla	592,256	38	36	36	36
Total	3,727,668	321(96%)	323(96%)	299(89%)	291(87%)

Total number of consultations

In week 20 there was a decrease in the number of reporting sites, and the number of consultations also decreased to 89,156 from 90,318. The highest number of consultations by district was in Muzaffarabad, with 25,934, and the lowest was in Battagram, at 7,452. The weekly trend of reporting units participating in the DEWS and the number of consultations is shown in figure 1.

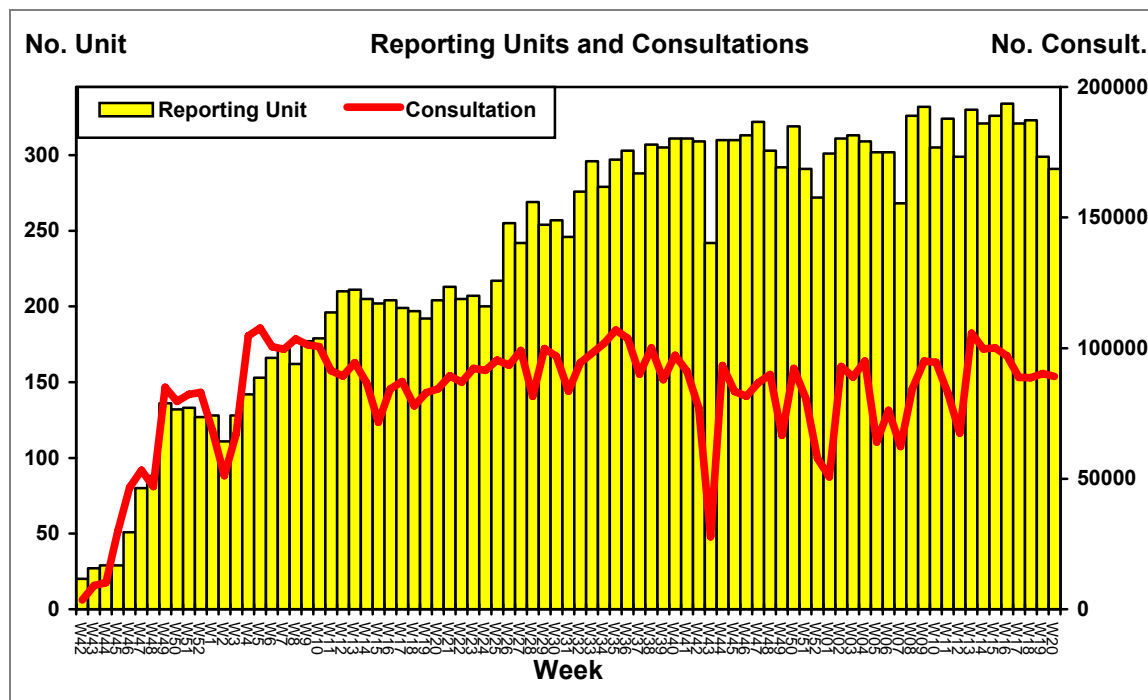


Figure 1. Weekly trend of reporting units and total number of consultations, Earthquake Affected Areas, Pakistan, 15 October 2005 - 18 May 2007.

DEWS Data, Epidemiological Week No. 20, 2007

In the last week (12 - 18 May 2007), there were **89,156** consultations reported through DEWS. Overall, **20%** (17,710) were due to acute respiratory infections (**ARI**), less than two percentage points higher than the same week last year. **9%** (8,290) of consultations were due to acute watery diarrhoea (**AWD**), **6%** (5,446) were due to fever of unknown origin (**FUO**) and **3%** (2,669) due to injuries (**INJ**). All of these percentages are almost identical to the rate seen in the same week last year. **ARI** in patients under five years is 6% higher in week 20 of 2007 compared to that same age group in the same week last year. At **17%** of consultations in patients 5 or more years old, the rate of ARI is less than one percentage point higher than in the same week last year. All other reportable conditions each represented less than 1% of the total consultations in week 20.

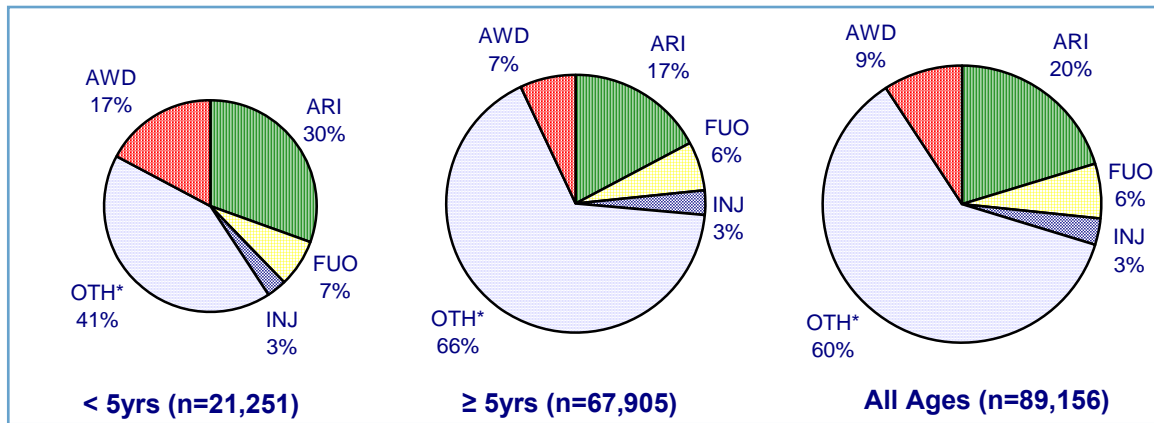


Figure 2. Proportion of primary causes for all reported cases, Earthquake Affected Areas, Pakistan, 12 – 18 May 2007.

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

DEWS Data, Epidemiological Week No. 19, 2007: Consultations by age

With warmer weather, rates of diarrhoeal diseases start rising. Since early spring, the rate of acute watery diarrhoea has increased in both age groups, though the rise has been much larger in patients under five years old. See figure 3.

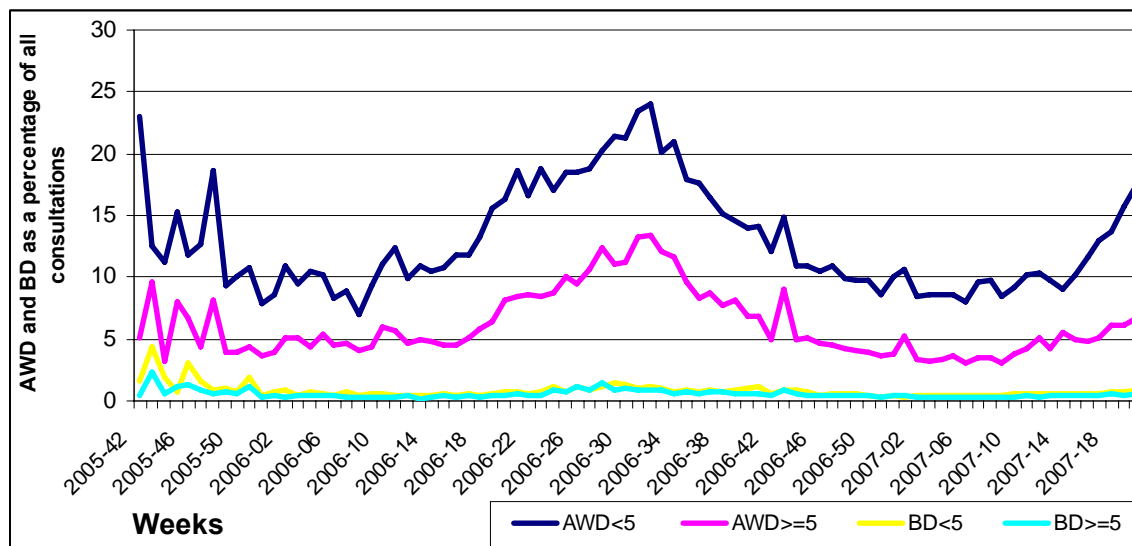


Figure 3: Trend in AWD and bloody diarrhoea as a percent of all consultations, by age group, Earthquake Affected Areas, Pakistan, 15 October 2005 - 18 May 2007

DEWS Data, Monthly Summary (Epidemiological Weeks No. 17-20)

In the past four weeks from 21 April to 18 May 2007 (Epidemiological weeks 17-20 inclusive), 142,144 consultations for health conditions under surveillance were reported, out of a total 356,939 consultations. **21%** (73,354) of consultations were due to acute respiratory infection (**ARI**), **8%** (29,063) acute watery diarrhoea (**AWD**), **7%** (24,317) unexplained fever (**FUO**) and **3%** (11,244) Injuries (**INJ**).

Table 2. Comparison of the weekly distribution of reported cases, deaths and monthly Case Fatality Rate (CFR), Earthquake Affected Areas, Pakistan, 21 April – 18 May 2007.

Week	WEEK 17		WEEK 18		WEEK 19		WEEK 20		TOTAL		CFR%
Event	C	D	C	D	C	D	C	D	C	D	
AWD	6223	0	7072	1	7478	1	8290	2	29063	4	0.014
BD	381	0	520	0	406	0	637	0	1944	0	0.000
AFP	0	0	1	0	1	0	0	0	2	0	0.000
MAL	481	0	491	0	380	0	608	0	1960	0	0.000
ARI	18343	4	18653	2	18648	2	17710	1	73354	9	0.012
MES	0	0	4	0	1	0	1	0	6	0	0.000
MEN	6	1	0	0	0	0	0	1	6	2	33.333
JAU	62	0	52	0	64	1	70	1	248	2	0.806
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	5604	0	7223	0	6044	0	5446	0	24317	0	0.000
INJ	3557	2	2868	0	2150	0	2669	0	11244	2	0.018
OTH	54171	15	51753	16	55146	9	53725	16	214795	56	0.026
TOTAL	88828	22	88637	19	90318	13	89156	21	356939	75	
RU	321		323		299		291				

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 **84,810** consultations were reported in the **less than 5** years old group, (**24%** of the total consultations), of which **30%** (25,778) were due to **ARI**, **15%** (12,672) due to **AWD**, **8%** (6,541) due to **FUO** and **3%** (2,159) 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 21 April – 18 May 2007.

Week	WEEK 17		WEEK 18		WEEK 19		WEEK 20		TOTAL		CFR%
Event	C	D	C	D	C	D	C	D	C	D	
AWD	2789	0	3010	1	3159	1	3714	2	12672	4	0.032
BD	117	0	152	0	134	0	200	0	603	0	0.000
AFP	0	0	1	0	0	0	0	0	1	0	0.000
MAL	98	0	106	0	57	0	156	0	417	0	0.000
ARI	6521	3	6604	2	6243	2	6410	1	25778	8	0.031
MES	0	0	1	0	1	0	1	0	3	0	0.000
MEN	1	0	0	0	0	0	0	0	1	0	0.000
JAU	1	0	2	0	4	1	9	0	16	1	6.250
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	1622	0	2036	0	1429	0	1454	0	6541	0	0.000
INJ	687	0	545	0	381	0	546	0	2159	0	0.000
OTH	9600	4	9515	5	8743	0	8761	1	36619	10	0.027
TOTAL	21436	7	21972	8	20151	4	21251	4	84810	24	
RU	321		323		299		291				

In the current week, there was an increase in the number of **AWD** cases with **7,478** last week and **8,290** this week. In the current week, **ARI** decreased in the total number of cases compared with the previous week, (**18,648** last week and **17,710** this week). The weekly proportion of ARI and AWD is shown in figure 4.

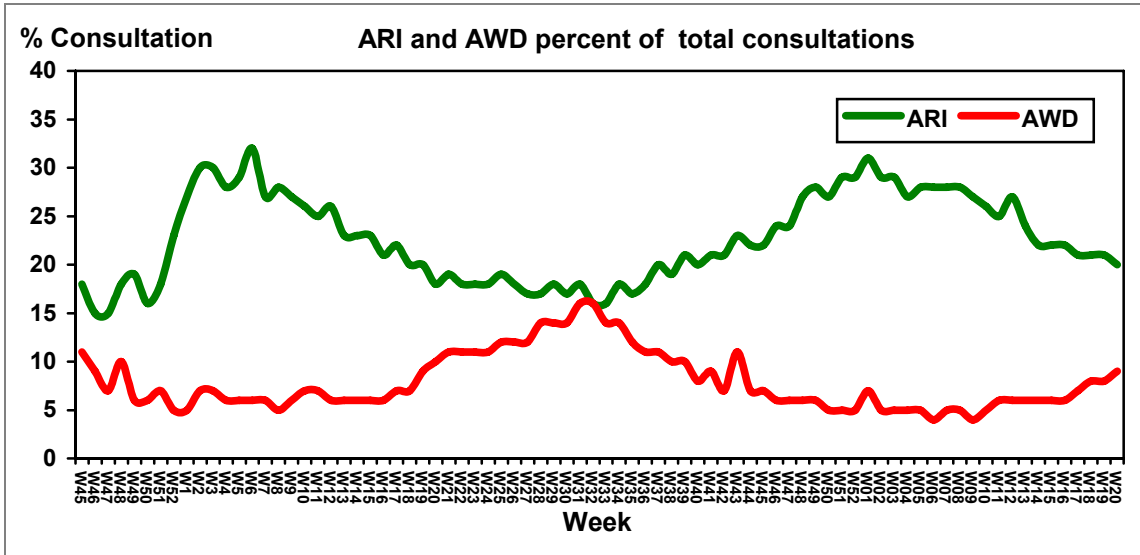


Figure 4. Weekly trend of percent of consultations for ARI and AWD, Earthquake Affected Areas, Pakistan, 15 October 2005 – 18 May 2007.

Acute Watery Diarrhoea

In week 20 there were 8,290 cases of AWD reported, an 11% increase over week 19. There were two associated deaths in patients less than five years of age reported one from Bagh and one from Muzaffarabad district. Though the large increase in one week may seem unusual, the rate of AWD in 2007 has been almost identical to that of 2006, including the increases. See Figure 5.

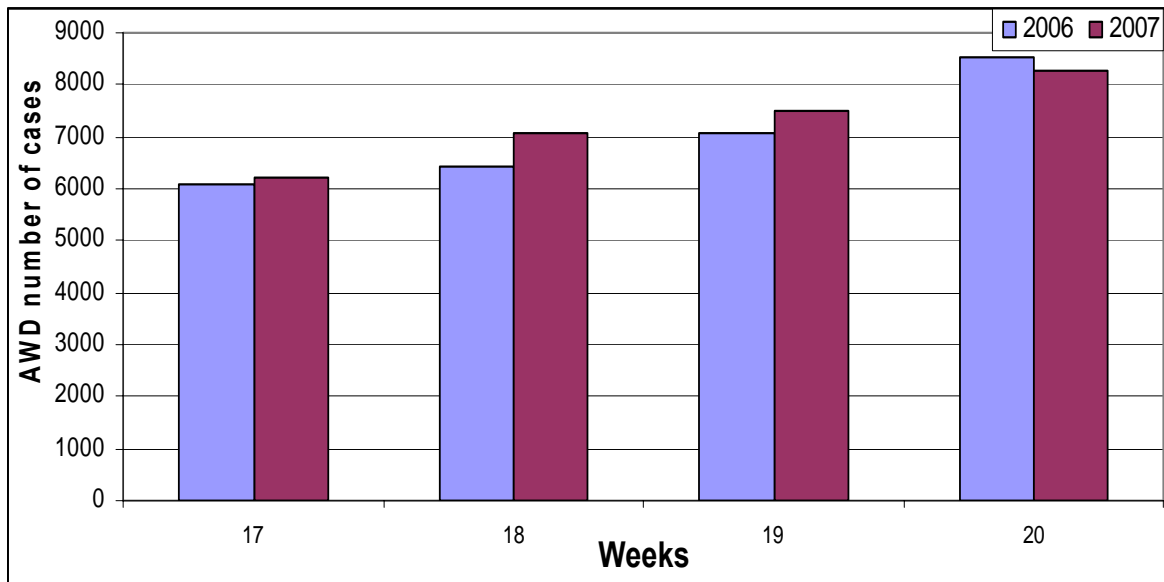


Figure 5: Trend in AWD as a percent of all consultations, 2006 and 2007, Earthquake Affected Areas, Pakistan, 22 April – 19 May 2006 and 20 April – 18 May 2007

Bloody Diarrhoea

In week 20, there were 637 suspected cases of bloody diarrhoea reported, a 43% increase compared to week 19. There were no associated deaths reported. The trend in bloody diarrhoea in 2007 is almost opposite that of the same four weeks of 2006, with rates climbing when last year they reduced, and reducing when last year they climbed. Averaged out, however, the rates are almost the same. See figure 6

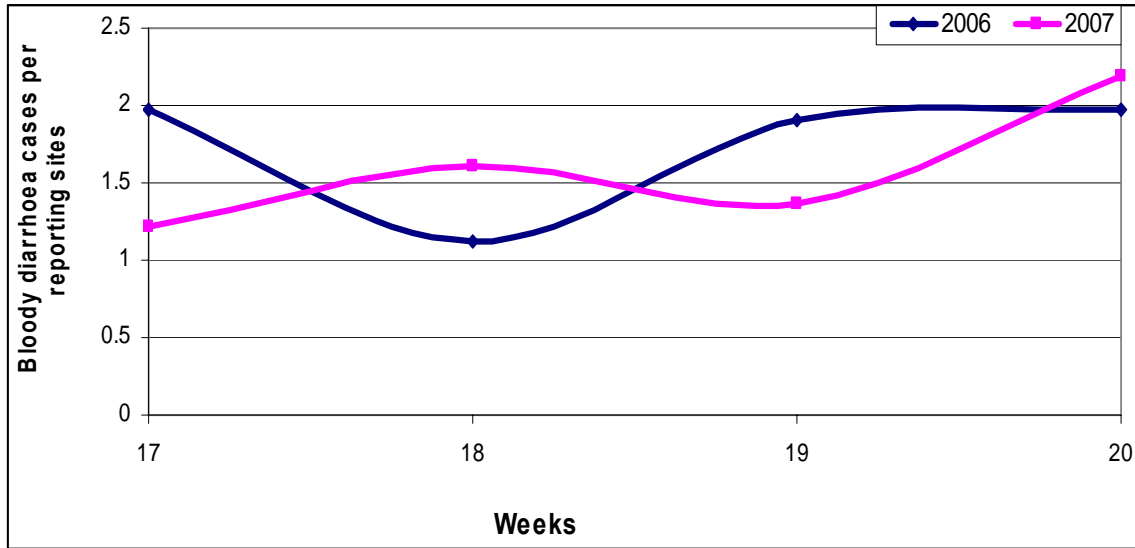


Figure 6: Trend in bloody diarrhoea cases per reporting site, 2006 and 2007, Earthquake Affected Areas, Pakistan, 22 April – 19 May 2006 and 21 April – 18 May 2007

Acute Jaundice Syndrome

In week 20 there were 70 cases of suspected hepatitis, with one associated death over five years of age reported from Muzaffarabad district. In the past three weeks, there has been a rise in the rate of suspected hepatitis, however the rate is still significantly below that of this time last year. See figure 7.

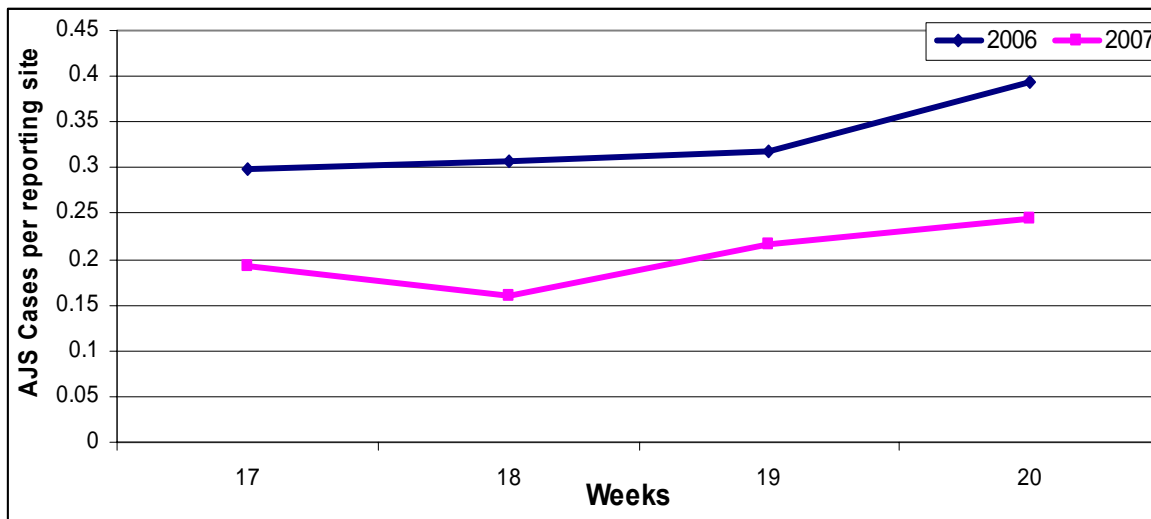


Figure 7: Trend in suspected hepatitis cases per reporting site, Earthquake Affected Areas, Pakistan, 22 April to 19 May 2006 – 21 April to 18 May 2007

Malaria

In week 20, there were 608 suspected malaria cases reported, 40% higher than week 19. There were no associated deaths reported. The rate of malaria has increased markedly in the past month. See figure 8.

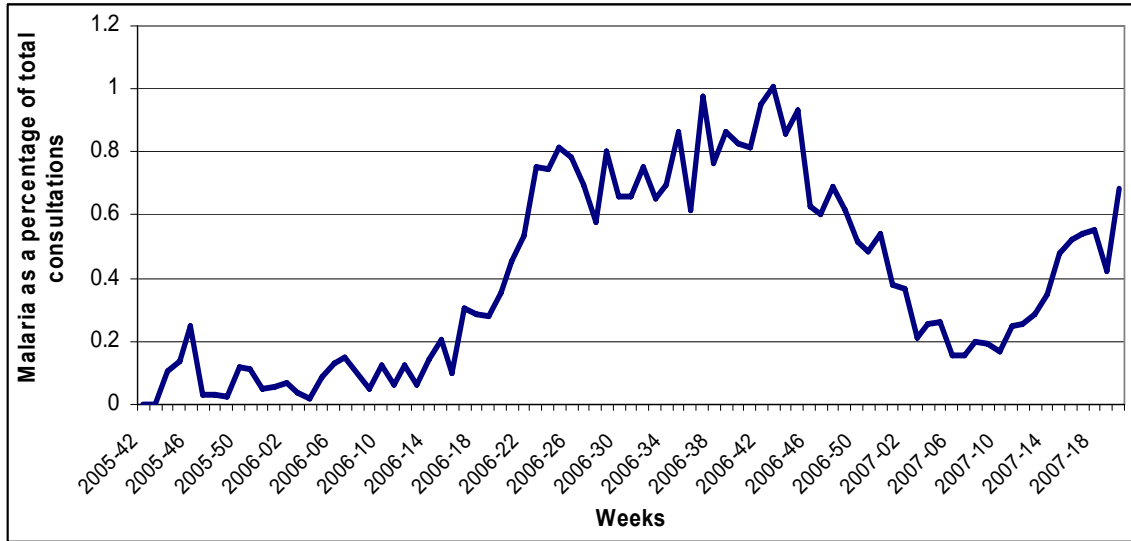


Figure 8: Trend in malaria as a percent of all consultation, Earthquake Affected Areas, Pakistan, 15 October 2005 – 18 May 2007

Measles

There was 1 case of suspected measles reported in week 20, from Bagh district. After a time of almost no cases in the beginning of 2007, recently there have been a larger number of cases reported, including an outbreak. See Figure 9.

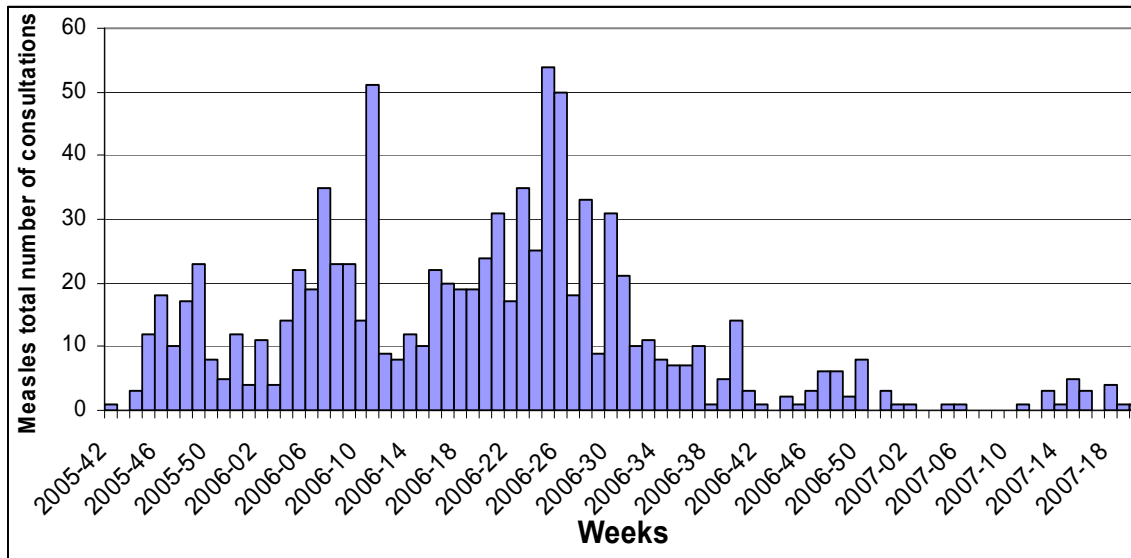


Figure 9: Trend in measles cases, Earthquake Affected Areas, Pakistan, 15 October 2005 – 18 May 2007

Acute Respiratory Infection

In week 20, there were 17,710 consultations for ARI reported through the DEWS system. There was one death in patient less than five years of age reported from Mansehra district. In the past four weeks, the rate of ARI has held relatively steady in most districts, with only small fluctuations. See Figure 10.

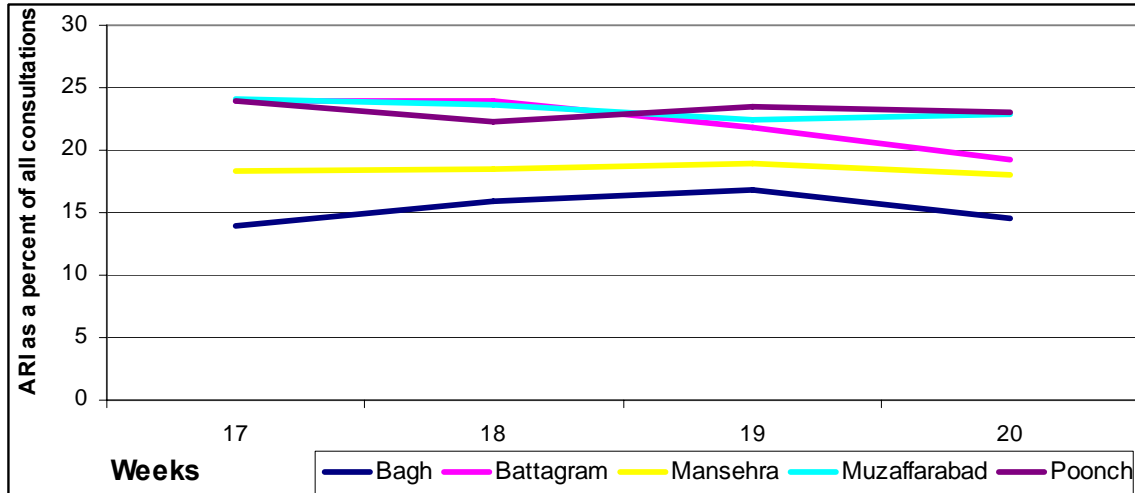


Figure 10: Trend in ARI as a percent of all consultations, Earthquake Affected Areas, Pakistan, 20 April – 18 May 2007

Other Reportable Diseases and Conditions

There were no cases of suspected meningitis reported from any district in week 20. There were 5,446 cases of fever of unknown origin, and 2,669 cases of injuries. There were no cases of tetanus or acute hemorrhagic fever.

A total of 24 haemorrhagic fever cases have been reported since the system was instituted. Virtually all of the cases were misdiagnoses or false reports, though one outbreak with four suspected cases was identified. See figure 11.

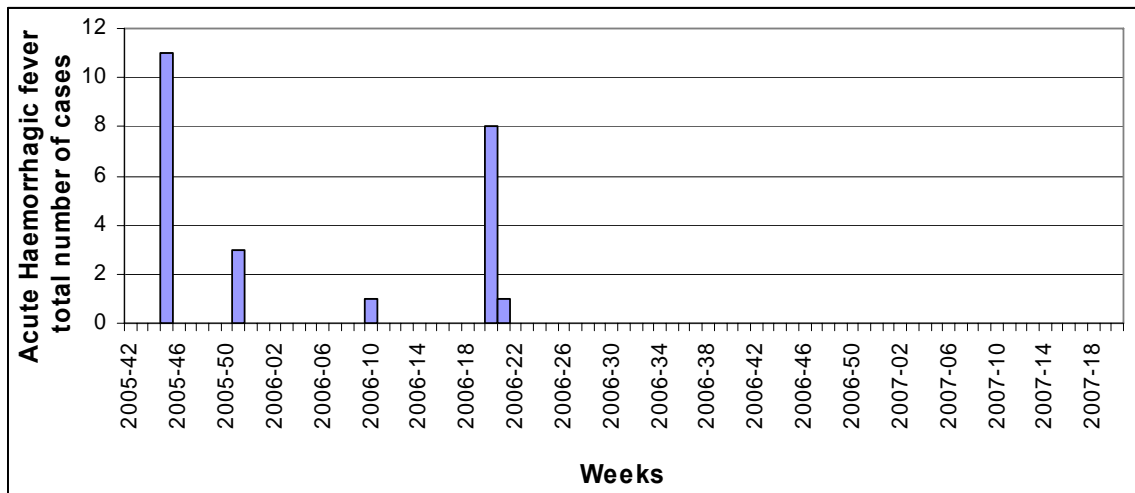


Figure 11: Haemorrhagic fever cases, Earthquake Affected Areas, Pakistan, 15 October 2005 – 18 May 2007

Outbreak Alert and Response¹

Acute Jaundice:

Bagh

Ten cases of suspected hepatitis were reported from DHQ Bagh in this week. DHQ hospital was visited to collect the addresses and locations of the patients, and OPD registers were consulted for details but information about the location of patients was not available. However a line listing form has been provided to the hospital staff keep track of all the suspected hepatitis patients during week 21.

Poonch

Twenty-five cases of suspected acute viral hepatitis were reported. 1 from RHC Paniola, 3 from FAP Troty Abbaspur and 21 cases reported from RHC Abbaspur mostly from Tangran and the vicinity. Details are awaited.

Acute watery diarrhoea

Mansehra

There was increasing number of acute watery diarrhoea reported from DHQ hospital, WHO surveillance team is collecting data on daily basis and are closely coordinating with the MS of hospital. Currently, there are no cases of moderate or severe dehydration.

Bagh

DHQ Bagh reported a 20 years old male patient, admitted with severe dehydration and shock. The patient was part of a group of travelling preachers. WHO Bagh surveillance team investigated the alert and a sample was collected from DHQ Bagh and sent to NIH Islamabad for laboratory confirmation. The patient had been for 3 days. No further patients were identified in the group or the nearby area. Hygiene education was given to the group of preachers and the local population. DHO was informed and briefed about the observation/assessment.

Another patient reported from DHQ Bagh was a 50 years male resident of village Dharray admitted with sudden onset of vomiting and profuse diarrhoea, leading to severe dehydration and shock. WHO Bagh surveillance team investigated the alert and a sample was collected from DHQ Bagh and sent to NIH Islamabad for laboratory confirmation. MSF-Belgium visited the patient's family and the nearby area. A hygiene promotion session was held with the local population and hygiene education was given in regard to hand washing, use of latrines and provision of boiled water use.

Measles

A 3 months old female baby resident of Ghaziabad was reported from RHC Ghaziabad as a suspected measles case. The case is being investigated by the DHO, and results are pending.

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, PAKTable 6. Number of reported cases and deaths, **Bagh District**, Earthquake Affected Areas, Pakistan, 21 Apr – 18May 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
17	551	0	36	0	0	0	30	0	1806	1	0	0	0	0	5	0	0	0	0	0	283	0	669	0	9534	2
18	474	0	24	0	0	0	29	0	1700	0	0	0	0	0	4	0	0	0	0	0	194	0	121	0	8120	5
19	1193	0	31	0	0	0	56	0	2522	0	1	0	0	0	12	0	0	0	0	0	290	0	59	0	10891	4
20	976	1	80	0	0	0	95	0	2106	0	1	0	0	0	24	0	0	0	0	0	311	0	85	0	10864	3
Total	3194	1	171	0	0	0	210	0	8134	1	2	0	0	0	45	0	0	0	0	0	1078	0	934	0	39409	14

Table 7. Number of reported cases and deaths, **Poonch District**, Earthquake Affected Areas, Pakistan, 21 Apr – 18May 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
17	1220	0	31	0	0	0	257	0	3046	1	0	0	0	0	32	0	0	0	0	0	1474	0	505	0	6186	4
18	1325	0	87	0	0	0	281	0	3348	0	0	0	0	0	27	0	0	0	0	0	2085	0	598	0	7287	1
19	1213	0	36	0	0	0	220	0	3113	0	0	0	0	0	30	0	0	0	0	0	1536	0	593	0	6525	4
20	1465	0	20	0	0	0	273	0	3677	0	0	0	0	0	25	0	0	0	0	0	1795	0	652	0	8041	3
Total	5223	0	174	0	0	0	1031	0	13184	1	0	0	0	0	114	0	0	0	0	0	6890	0	2348	0	28039	12

Table 8. Number of reported cases and deaths, **Muzaffarabad District**, Earthquake Affected Areas, Pakistan, 21 Apr – 18May 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
17	2266	0	209	0	0	0	137	0	6345	1	0	0	6	1	5	0	0	0	0	0	1367	0	1568	2	14808	3
18	2936	0	310	0	0	0	136	0	7300	2	3	0	0	0	5	0	0	0	0	0	2803	0	1467	0	16011	4
19	2599	0	248	0	1	0	82	0	6829	0	0	0	0	0	4	1	0	0	0	0	2495	0	874	0	17277	1
20	2499	1	402	0	0	0	182	0	5950	0	0	0	0	0	3	1	0	0	0	0	1319	0	1218	0	14361	7
Total	10300	1	1169	0	1	0	537	0	26424	3	3	0	6	1	17	2	0	0	0	0	7984	0	5127	2	62457	15

Number of reported cases and deaths per District, NWFPTable 9. Number of reported cases and deaths, **Battagram District**, Earthquake Affected Areas, Pakistan, 21 Apr – 18May 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
17	527	0	71	0	0	0	33	0	1988	0	2	0	0	0	10	0	0	0	0	0	513	0	208	0	4971	0
18	617	0	76	0	0	0	29	0	1701	0	0	0	0	0	4	0	0	0	0	0	375	0	209	0	4112	0
19	616	0	64	0	0	0	9	0	1565	0	0	0	0	0	4	0	0	0	0	0	379	0	242	0	4314	0
20	654	0	79	0	0	0	37	0	1432	0	0	0	0	0	11	0	0	0	0	0	473	0	220	0	4546	1
Total	2414	0	290	0	0	0	108	0	6686	0	2	0	0	0	29	0	0	0	0	0	1740	0	879	0	17943	1

Table 10. Number of reported cases and deaths, **Mansehra District***, Earthquake Affected Areas, Pakistan, 21 Apr – 18May 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
17	1659	0	34	0	0	0	24	0	5158	1	0	0	0	0	10	0	0	0	0	0	1967	0	607	0	18672	6
18	1720	1	23	0	1	0	16	0	4604	0	1	0	0	0	12	0	0	0	0	0	1766	0	473	0	16223	6
19	1857	1	27	0	0	0	13	0	4619	2	0	0	0	0	14	0	0	0	0	0	1344	0	382	0	16139	0
20	2696	0	56	0	0	0	21	0	4545	1	0	0	0	1	7	0	0	0	0	0	1548	0	494	0	15913	2
Total	7932	2	140	0	1	0	74	0	18926	4	1	0	0	1	43	0	0	0	0	0	6625	0	1956	0	66947	14