

Highlights

- The weekly reporting timeliness of EWARS, this week, was 59% against a set target of over 85%.
- The number of population under surveillance for the current week was 1.4 million and the health facility utilization rate recorded in the IDP camps of Darfur for this week was 1.9 visits/person/year
- ARI remains the leading cause of morbidity for all age groups in the IDP camps while Malaria registered as the leading cause of mortality in all the age groups this week.
- The transmission of Acute Watery Diarrhoea, caused by *Vibrio Cholera 01 Inaba*, has not yet stopped in Darfur and control measures remain difficult to implement in view of unpredictable security situation prevailing in the region.

Reporting timeliness.....	2
Population under surveillance.....	2
Proportionate morbidity and mortality.....	3
Distribution of reported cases and CFR.....	4
Reported weekly incidence of selected endemic diseases.....	5
Surveillance for Measles.....	5
Surveillance for Malaria.....	6
Surveillance for Bloody Diarrhoea.....	6
Acute Watery Diarrhoea Outbreak in Darfur	7

This weekly epidemiological bulletin is published jointly by the FMOH of the Government of Sudan and WHO. This bulletin is built upon surveillance data that are reported, every week, by the health services providers to the Early Warning and Alert Response Surveillance System (EWARS) which presently cover over 90% of IDPs currently living in camps and settlements across the three states of Darfur in Sudan. The Bulletin provides a snapshot of health events from the health facilities where these events are registered, and data collected and where, it can be argued, standards of access, care and assistance are comparatively better than the areas which are still inaccessible. The bulletin does not reflect information from areas where no health services are currently offered to the IDPs.

Further information:

FMOH, Sudan, **Dr Babiker Ahmed Ali Magboul**: babkerali@yahoo.com
 WHO, Sudan, **Dr. Mamunur Rahman Malik** : malikm@sud.emro.who.int
 WHO, Sudan, **Dr Rajesh Sreedharan**, sreedharanr@sud.emro.who.int
 WHO, Sudan, darfurcrisis@sud.emro.who.int
 URL: <http://www.emro.who.int/sudan>

Reporting timeliness

During the current week, 74 out of 126 reporting units (59%) of the **Early Warning and Alert Response Surveillance (EWARS)** system of Darfur have sent their surveillance data on time. The “benchmark” for reporting timeliness of EWARS, in order to periodically monitor the quality of the surveillance performance of EWARS, is set at 85%. Despite the fact that there was an improvement of reporting timeliness of the EWARS at the beginning of 2006, the target remains far from being underachieved. The trend shows that from the 14th epidemiological week 2006 onwards, there has been a drop in reporting timeliness of the EWARS mostly due to worsening security situation across Greater Darfur.

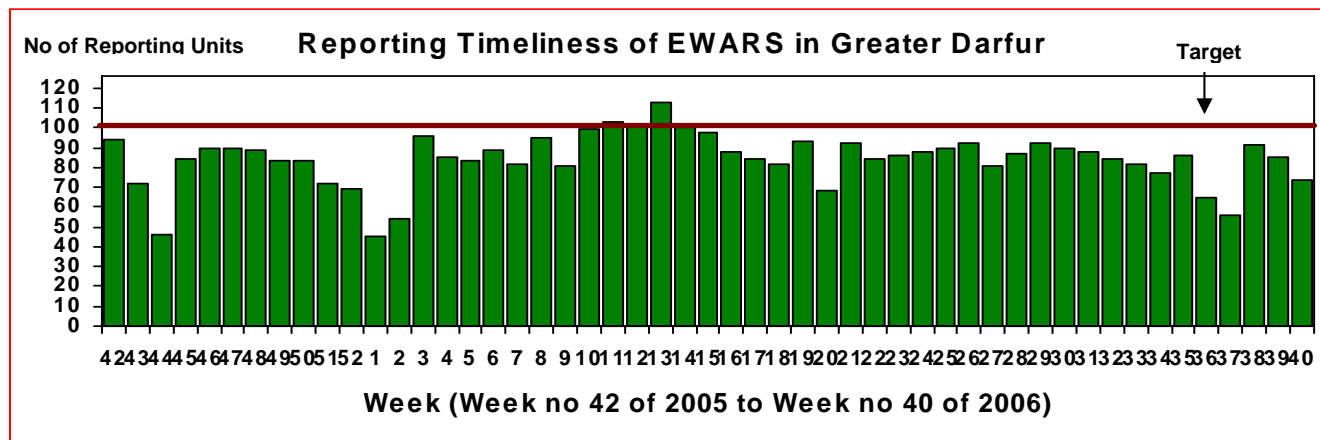


Figure 1. Reporting units, Greater Darfur, Sudan, October 2005 to 7 October 2006

Population under surveillance and consultations

The total number of **consultations** reported throughout Greater Darfur this week was **54,737** (Figure-2). The number of **population under surveillance**, reported for the current week, is **1,460,384** which shows a decrease by 0.1% over the previous week (From **1,461,898** reported last week to **1,460,384** reported this week). The **health facility utilization rate**, remains constant at 1.9 visits/person/year reported this week.

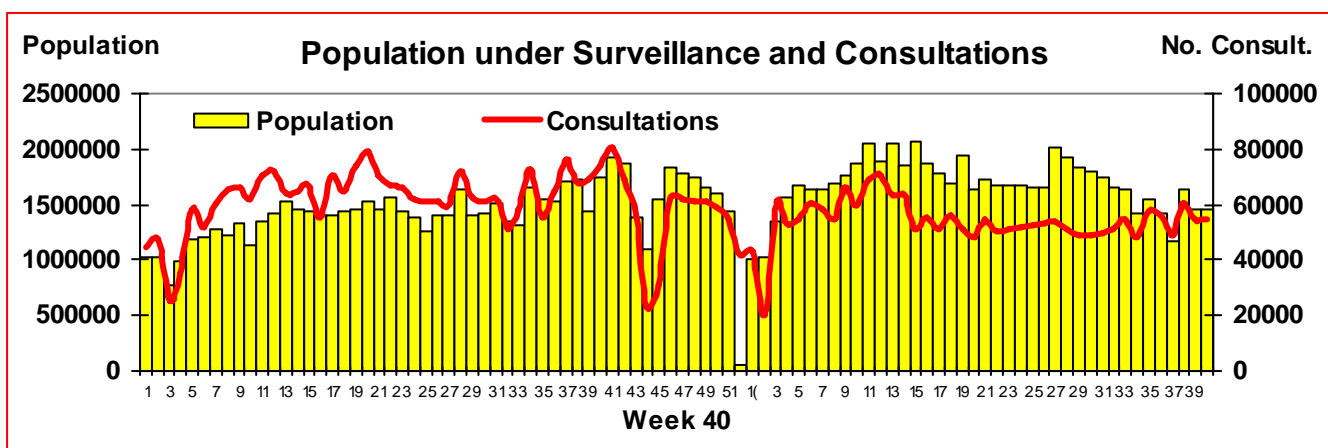


Figure 2. Weekly distribution of population under surveillance and consultations, Greater Darfur, Sudan, 1 Jan 2005 – 7 October 2006.

Proportionate morbidity and mortality reported during the week

Between 1-7 October, a total of 54,737 cases of health events under surveillance were reported from all age groups. Of these, 18,521 (34%) cases of health events were reported from under 5 year age group while the remaining 36,216 (66%) cases of health events were reported from above 5 year age group. In the above 5 year age group, excepting the category “others”, 10 % (3870) of reported cases were due to **Acute Respiratory Tract Infection (ARI)** and **Clinically Diagnosed Malaria** contributed to 8% (3135) of all reported cases. By comparison, 23% (4214) of reported cases in the under 5 year age group was attributed to **Acute Respiratory Tract Infection (ARI)** followed by **Clinically Diagnosed Malaria** (8%; 1590/18521)

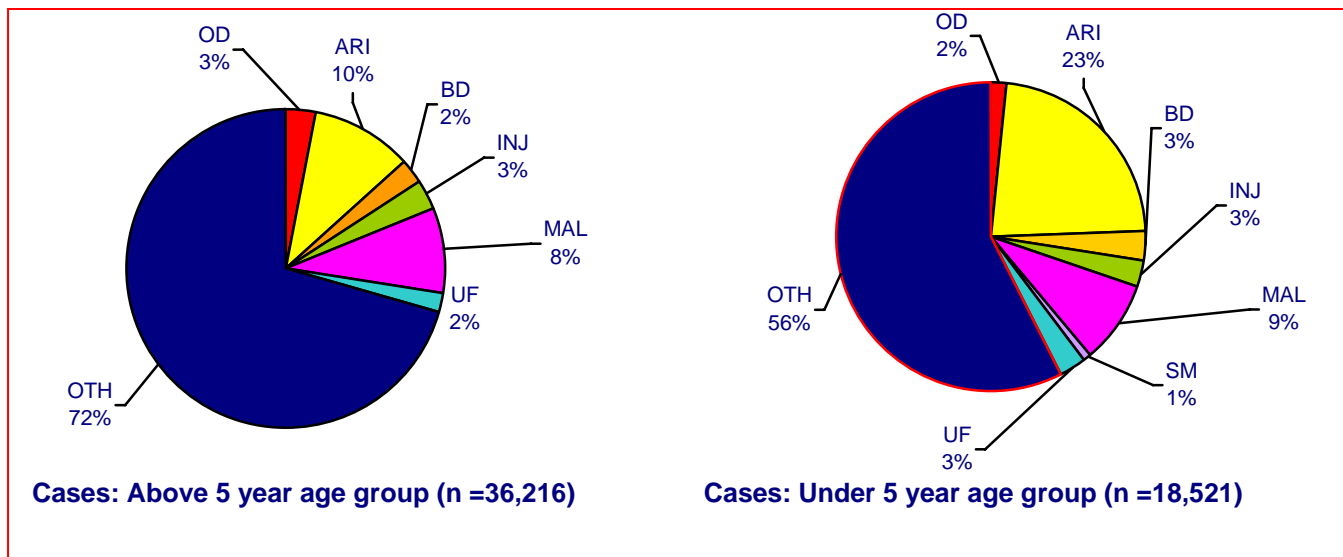


Figure 3: Proportion of all reported cases, Greater Darfur, Sudan, 1-7 October 2006

During the same period, there were **31 reported deaths** in all age groups (Figure-4). Of these, 7 deaths were reported in the **less than 5 year age group** representing 23% of total deaths reported from Greater Darfur during this week. In the less than 5 year age group, 1 death, (13%) was attributed to Malaria. The overall **Case Fatality Rate (CFR)** for children under 5 years for the current epidemiological week was **0.04%**. In the above 5 year age group, excepting the category “others”, 2 deaths (8%), were attributed to Malaria, while 1 death (4%), each, was reported from jaundice, fever and malnutrition. The overall **Case Fatality Rate (CFR)** for cases above 5 year age group for the current epidemiological week was **0.07%**.

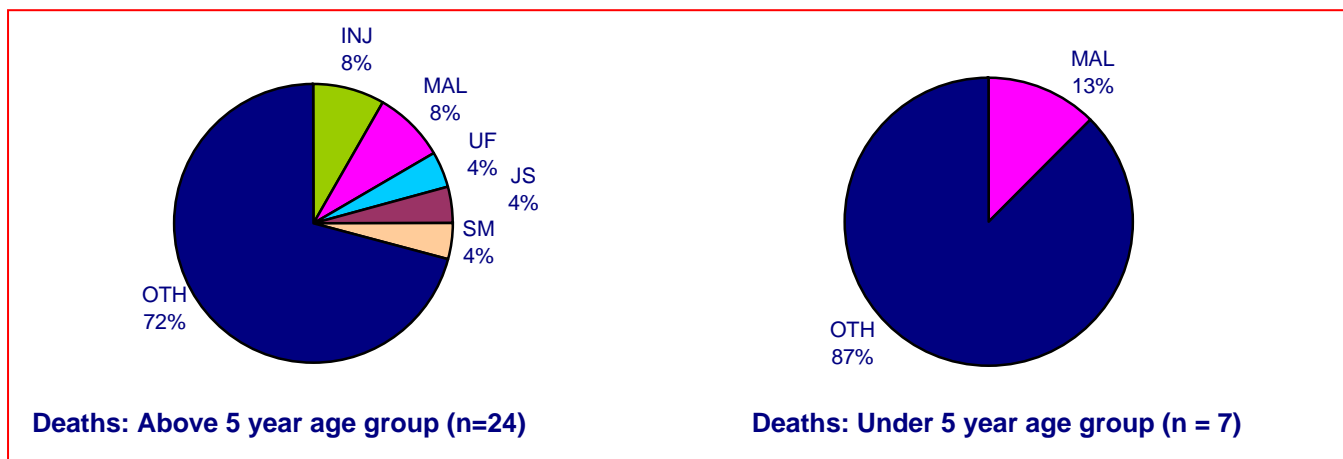


Figure 4: Proportion of all reported deaths, Greater Darfur, Sudan, 1-7 October 2006

Distribution of reported cases and CFR in Darfur

During the current reporting week, the **CFR** (Figure-5) for Malaria (0.06%) was highest in the under 5 years

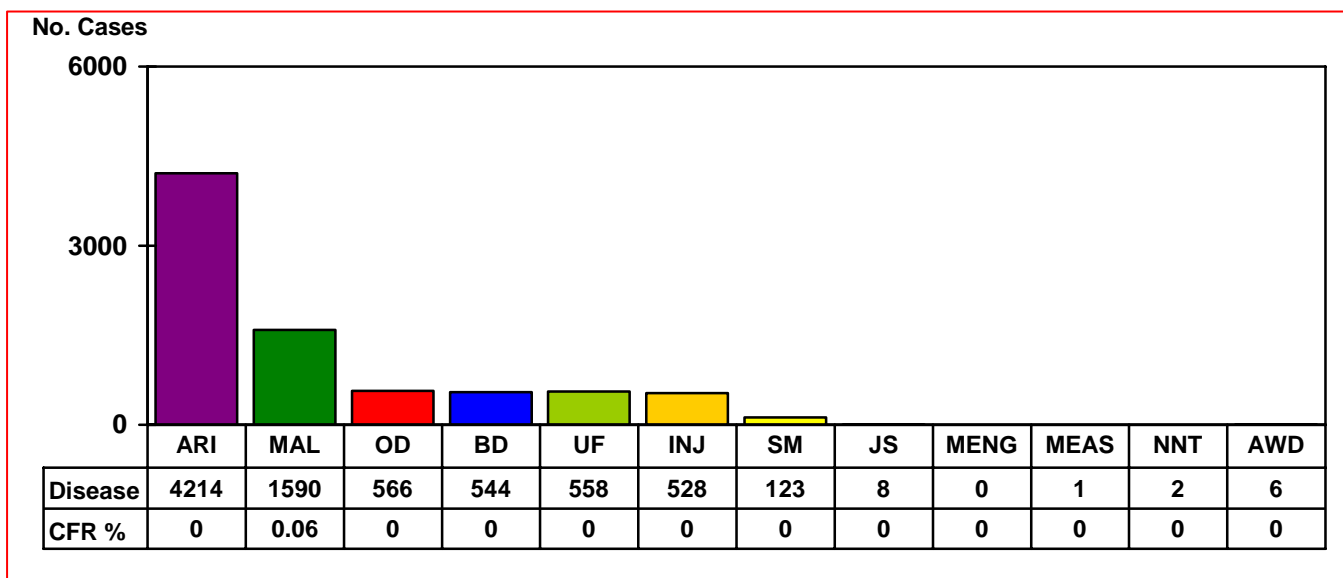


Fig.5: Distribution of reported cases and CFR in the under 5 year age group, Greater Darfur, 1-7 October 2006

On the other hand, in the above 5 year age group, Acute Jaundice (**1.9%**) had the highest **Case Fatality Rate** (Figure-6) followed by Severe Malnutrition (0.06%).

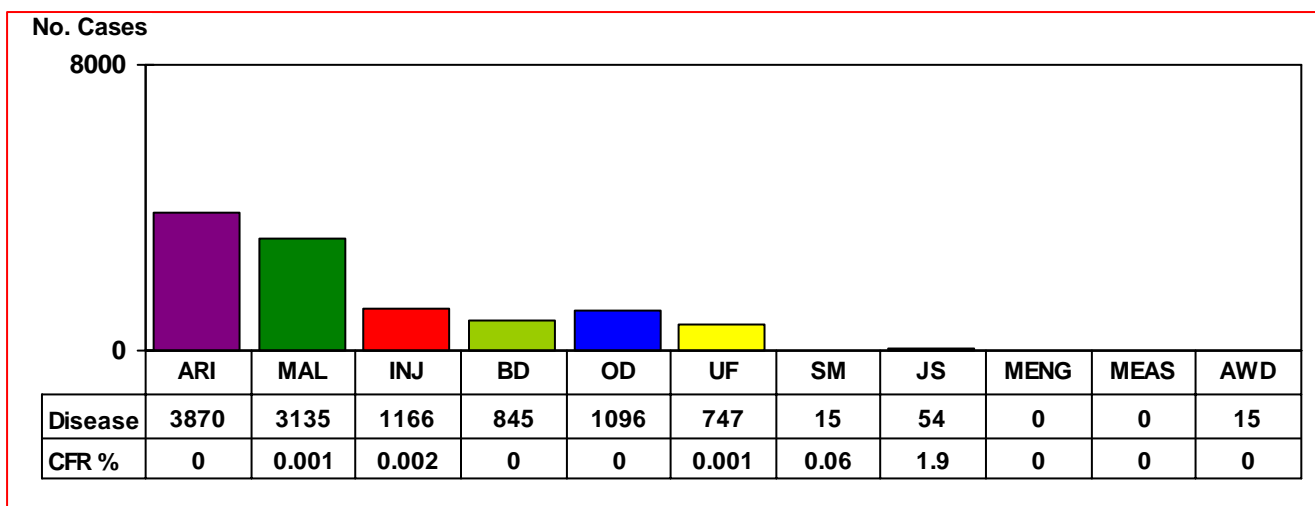


Fig.6: Distribution of reported cases and CFR in the above 5 year age group, Greater Darfur, 1-7 October 2006

Reported weekly incidence rate of selected endemic diseases

During the current week (1-7 October 2006), the case load of selected endemic diseases were usual given the seasonality of these diseases reported earlier from Greater Darfur.

Table-1: Cases and weekly incidence rate of selected endemic diseases reported from Darfur. (Epidemiological week-40: 1-7 October 2006)

Diseases	North Darfur		West Darfur		South Darfur	
	Cases	IR (cases/10,000)	Cases	IR (cases/10,000)	Cases	IR (cases/10,000)
Acute Respiratory Infection	1843	107.6	2626	57.5	3313	44.5
Bloody Diarrhea	114	6.7	661	14.5	576	8.1
Clinically Diagnosed Malaria	603	35.2	1766	38.7	2198	29.2
Acute Jaundice Syndrome	5	0.3	15	0.3	40	0.5

No “unusual trend” was also observed for the weekly incidence rate of any of these diseases reported from Darfur this week. For Acute Respiratory Infection, the global average rate for whole of Darfur reported this week was 70 cases/10,000 populations. However, except North Darfur (108 cases/10,000), the weekly incidence rate of ARI reported from South (45 cases/10,000) and West (58 cases /10,000) was below the global average recorded for Greater Darfur. For Clinically Diagnosed Malaria, the highest weekly incidence rate was in West Darfur (15 cases/10,000) and the lowest was in South Darfur (29 cases/10,000) while the global average rate for Greater Darfur reported this week was 34 cases per 10,000. The weekly incidence rate for Bloody Diarrhea was highest in West Darfur (15 cases/10,000) followed by South Darfur (8 cases /10,000 and North Darfur (7 cases/10,000). The global average for Greater Darfur observed this week was 10 cases per 10,000. The weekly incidence rate of acute jaundice syndrome was highest in South Darfur (0.5case/10,000) while the global average incidence rate of Acute Jaundice Syndrome for Greater Darfur, this week, was 0.37 case/10,000.

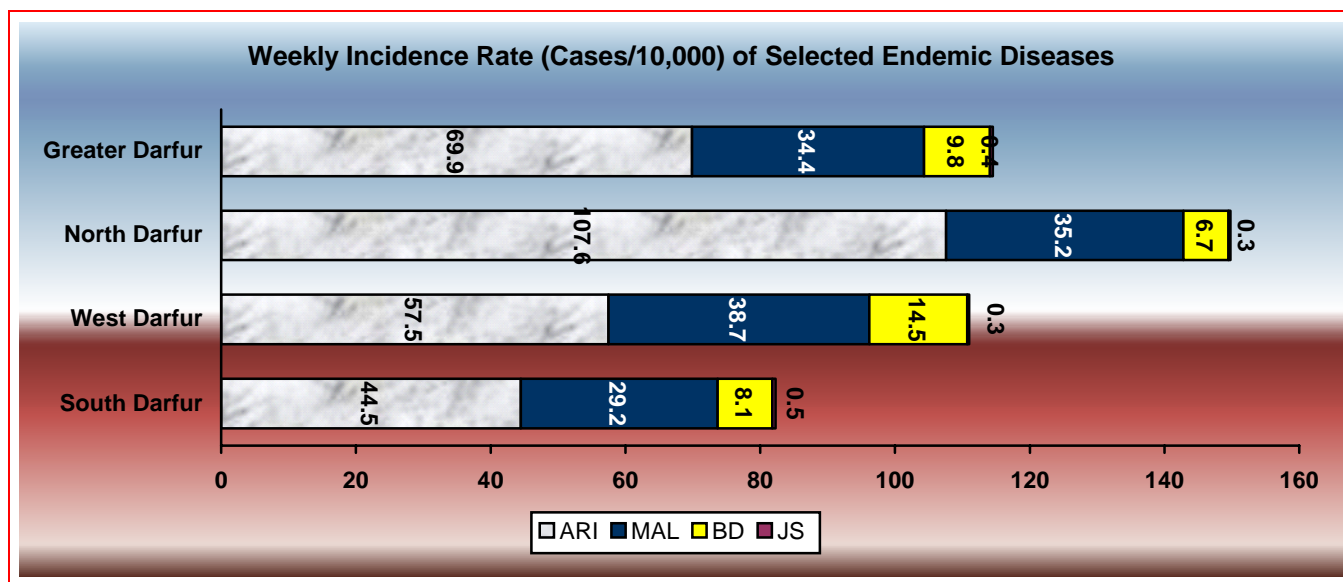


Figure 7. Reported weekly incidence rate of selected communicable diseases, Greater Darfur, Sudan, 1-7 October 2006

Surveillance for Measles

Since 1 January 2005 to date, the EWARS has notified 481 clinically diagnosed measles cases from Greater Darfur with 2 deaths. During the current week, one case was reported from West Darfur state.

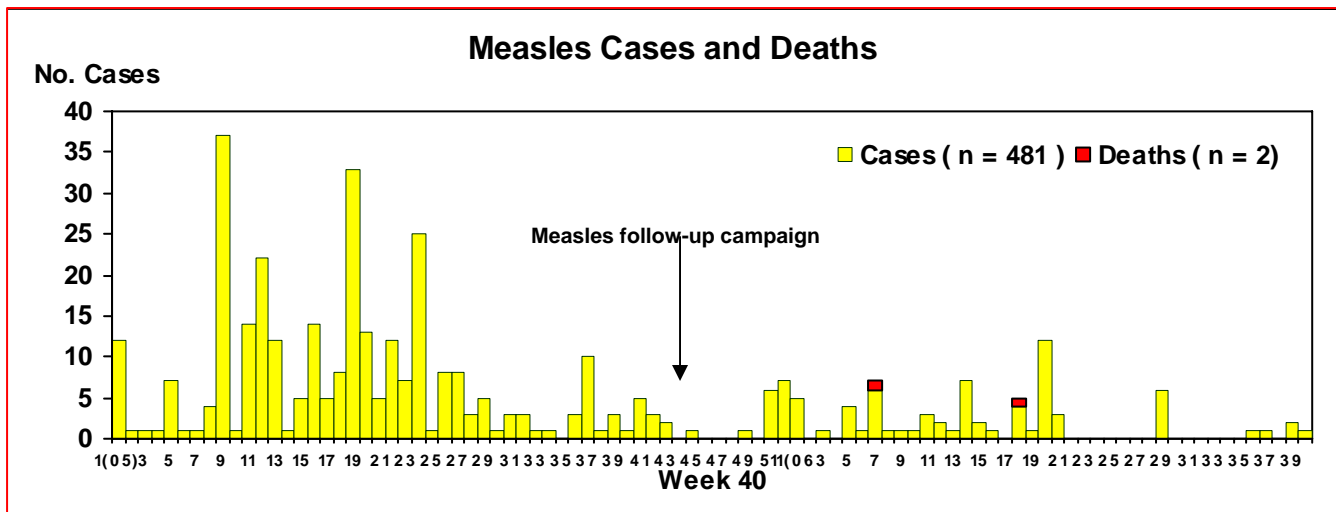


Figure 8. Weekly reporting of measles cases and death, Greater Darfur, 1 January 2005 to 7 October 2006.

Surveillance for Malaria

With the onset of rainy season, the attack rate as well as proportional morbidity attributed to clinically diagnosed malaria is gradually increasing across Greater Darfur. The weekly attack rate of malaria, observed throughout Greater Darfur, during the current epidemiological week was **3.4 cases per 1000** (Figure-9) which is almost at par with the mean attack rate (3.2 cases per 1000) observed during 2005 and not above the historical value (past attack rates observed during the same period in 2005).

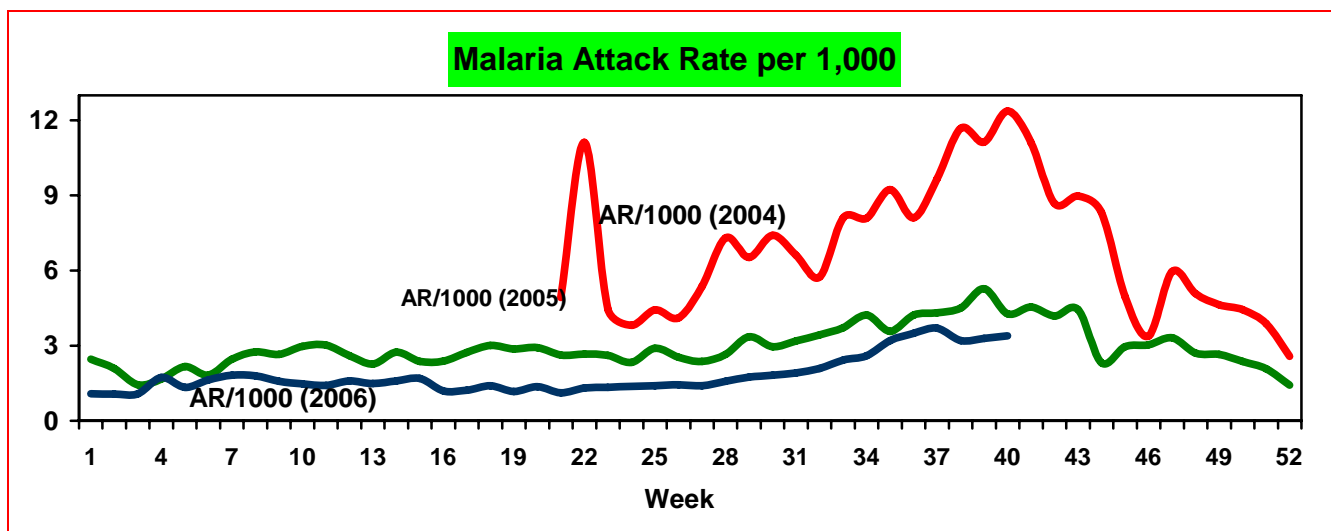


Figure-9: Comparison of current attack rate of malaria with historical value

Surveillance for Bloody Diarrhoea

The attack rate of bloody diarrhoea, observed during the current week, was **9.8 cases per 10,000** which is slightly above the attack rate (9.7 cases per 10,000) observed during the same period in 2005 (Figure-10). Higher attack rate is observed in West Darfur this week compared to either North or South Darfur.

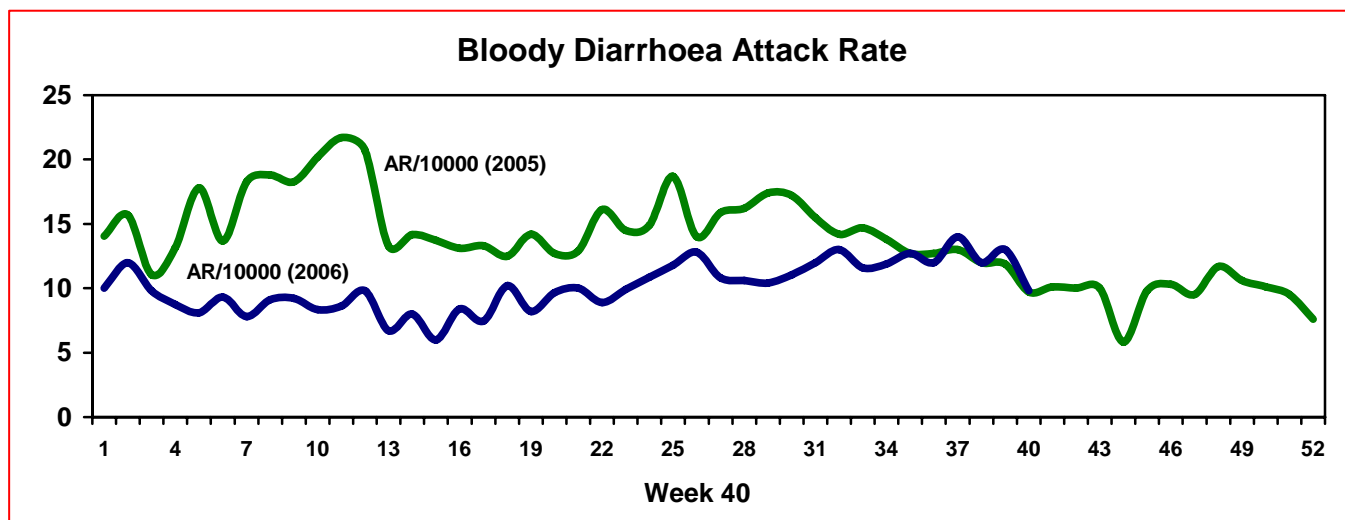


Figure-10: Comparison of current attack rate of Bloody Diarrhoea with historical value

Acute Watery Diarrhoea Outbreak in Darfur

Between 24 May to 7 October 2006, a total of 2,452 cases of Acute Watery Diarrhoea including 123 deaths (CFR: 5.0%) were reported from Greater Darfur. Of these reported cases, 63 % have occurred in South Darfur state (CFR: 4.8%), 27% have occurred in West Darfur state (CFR: 5.9%) and 10% have occurred in North Darfur state (CFR: 4.1 %). During the current week, 62 cases with 1 deaths (CFR: 1.6%) were reported from South Darfur, 27 cases with 3 death (CFR: 11%) from North Darfur and 40 cases with no death (CFR: 0.0%) were reported from West Darfur.

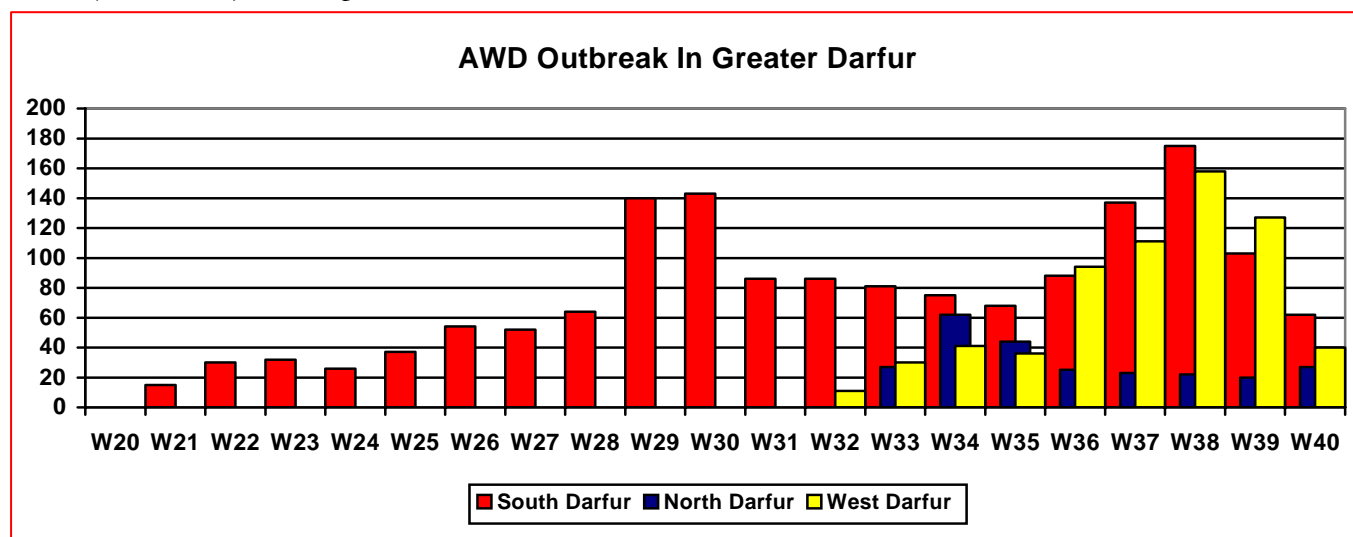


Figure-11: Weekly Incidence of Acute Watery Diarrhoea reported from Greater Darfur: Week no 21 to Week no 40

Vibrio cholerae 01 serotype *Inaba* has been laboratory confirmed by the National Public Health Laboratory (NPHL) in Khartoum from a number of stool samples collected from these AWD cases in Greater Darfur. The current outbreak, first, started in South Darfur on 24 May 2006 and the "index" case was imported from North Kordofan by a passenger train (where an epidemic from AWD was ongoing). Gradually more cases were reported from other localities in South Darfur. In North Darfur, the index case reported to the El Fasher teaching hospital on 17 August and was not epidemiologically linked to cases in South Darfur. In West Darfur, on the other hand, the outbreak started on 5 August 2006 in an IDP camp (Mornei) and then spreaded to Nertiti and Jabel Mera localities. The death rate, initially very high, is coming down in recent time in all the three states of Darfur. The control measures, however, remains difficult to implement in Darfur in view of the unpredictable security situation prevailing in the region.