

Highlights

The reporting timeliness of Early Warning and Alert Response System, (EWARS) of Darfur for the current week was 71%.

As the humanitarian access to IDP settlements and camps throughout Darfur plummets owing to increasing insecurity situation in the region, the surveillance coverage of EWARS drops significantly. The health facility utilization rate for this week was 1.6 visits/person/year

ARI, Bloody Diarrhoea, Malaria and Unidentified Fever are the leading causes of morbidity in Darfur

Disease surveillance for early detection of malaria and meningococcal meningitis outbreak have been enhanced throughout accessible areas of Darfur

Following the Hepatitis-E Outbreak in one of the IDP camps of South Darfur, environmental control of risk factors has been strengthened to contain the outbreak and limit the spread. The reported jaundice cases have reduced significantly in last weeks.

Reporting timeliness.....	2
Population under surveillance.....	2
Proportionate morbidity and mortality.....	3
Distribution of reported cases and CFR.....	4
Weekly incidence of selected endemic diseases.....	5
Surveillance for Measles.....	5
Surveillance for Malaria.....	6
Surveillance for Bloody Diarrhoea.....	6
Acute Jaundice Syndrome in South 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 Disease Early Warning System of Darfur which presently cover over 90% of IDP settlements in the region. The Weekly Morbidity and Mortality Bulletin (WMMB) provides a snapshot of weekly trend of epidemic prone diseases that are registered in the health facilities serving only the IDPs in Darfur. The bulletin does not, however, cover health information from areas where no health services are currently offered to the IDPs in Darfur.

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 Nilesh Buddha:** buddhan@sud.emro.who.int
WHO, Sudan, csrsud@sud.emro.who.int
URL: <http://www.emro.who.int/sudan>

Reporting timeliness

During the current week (10-16 March 2007), 99 of 126 reporting units (71%) of the **Early Warning and Alert Response System** (EWARS) 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, has been set at 85%. Despite the fact that there has been an improvement of reporting timeliness of the EWARS this year, the target still remains to be achieved. The trend shows that from the 14th epidemiological week of 2006 onwards, the reporting timeliness of the EWARS in Darfur has plummeted considerably as a result of increasing insecurity situation in Darfur resulting in diminished access of humanitarian agencies to IDP camps and settlements of conflict torn Darfur region.

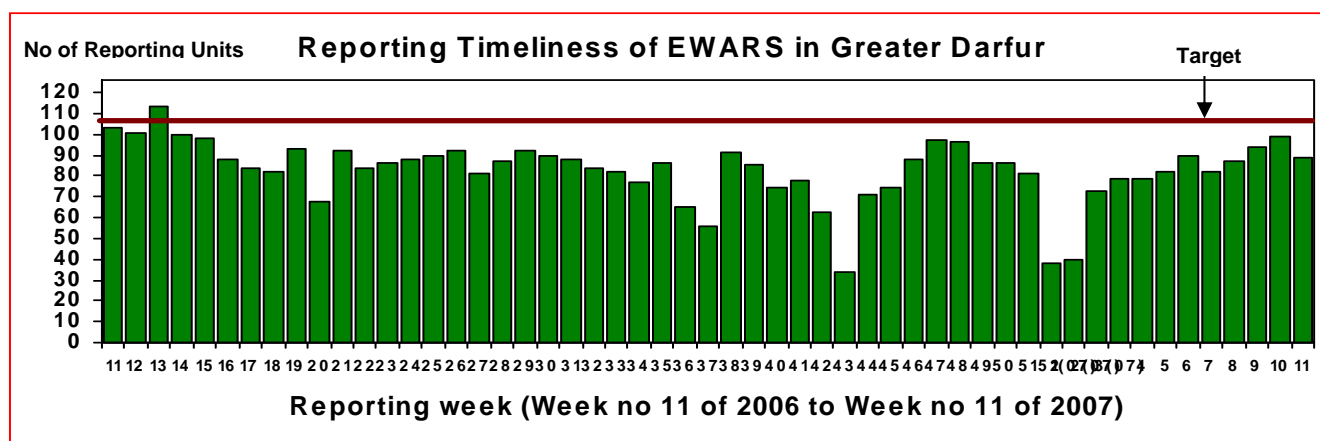


Figure 1. Reporting units, Greater Darfur, Sudan, week 11 of 2006 to week 11 of 2007

Population under surveillance and consultations

The total number of **consultations** reported throughout Greater Darfur this week was **58,690** (Figure-2) which shows a decrease (by 1.6%) over total consultations reported last week (59,670). The number of **population under surveillance** for the current reporting week, was **1,856,687** which shows a decrease by 4.6% over the previous week (From 1,946,055 reported last week to 1,856,687 reported this week). The **health facility utilization rate**, for the current week, was 1.6 visit/person/year.

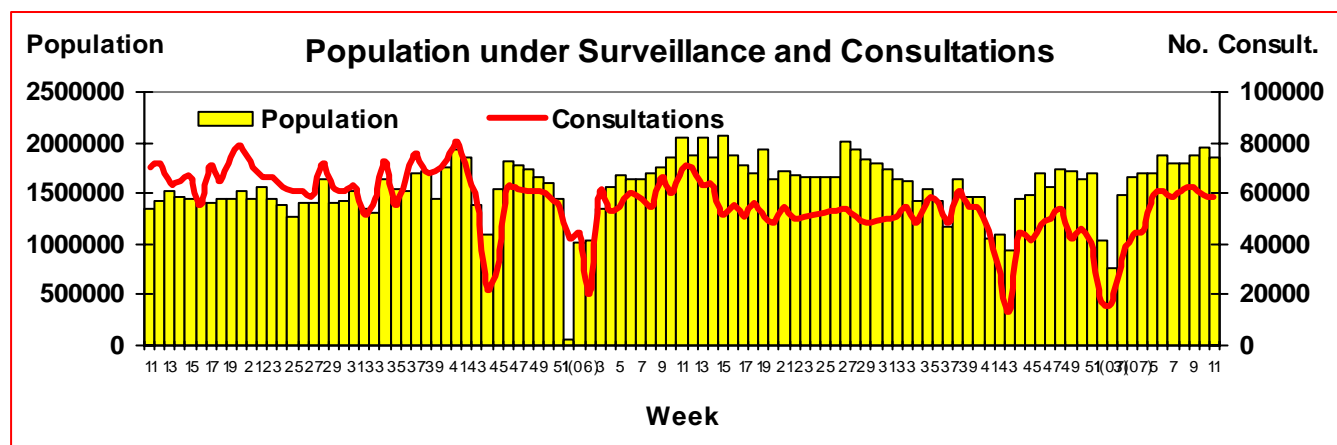


Figure 2. Weekly distribution of population under surveillance and consultations, Greater Darfur, Sudan, Week 11 2006 – week 11 2007

Proportionate morbidity and mortality of reported health events

Between 10-16 March 2007, a total of 58,690 health events under surveillance were reported from Darfur. Of these, 22,570 health events (38%) were reported in the less than 5 year age group while the remaining 36,120 health events (62%) were reported in the above 5 year age group. In the above 5 year age group, excepting the category “others”, 17 % of reported cases were attributed to **Acute Respiratory Tract Infection (ARI)** while **Clinically Diagnosed Malaria** contributed to 4% of all reported cases. By comparison, 28% of reported cases in the under 5 year age group was attributed to **Acute Respiratory Tract Infection (ARI)** followed by **Clinically Diagnosed Malaria** (4%)

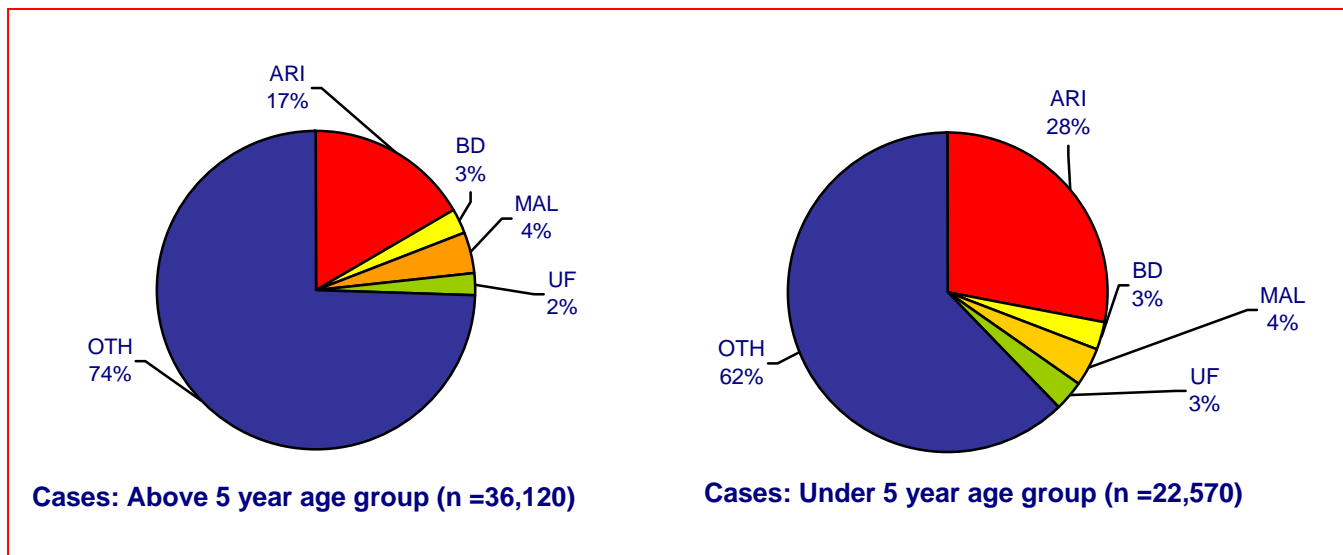


Figure 3: Proportion of all reported cases, Greater Darfur, Sudan, 10 – 16 March 2007

During the same period, there were **22 reported deaths** in all age groups (Figure-4). Of these, **9 deaths** were reported in the **below 5 year age group** representing 41% of total deaths reported during the current week. In less than 5 year age group, out of 9 reported deaths, 1 death (11%) was attributed each to ARI, Bloody Diarrhoea, Malnutrition and NNT and 5 deaths (56%) were reported in “others” category. The overall **Case Fatality Rate (CFR)** for children under 5 years was **0.04%**. In the above 5 year age group, excepting the category “others”, 3 deaths (23%) were reported from ARI and 2 deaths (15%) due to Other Diarrhoea. The overall **Case Fatality Rate (CFR)** for cases above 5 year age group was **0.04%**.

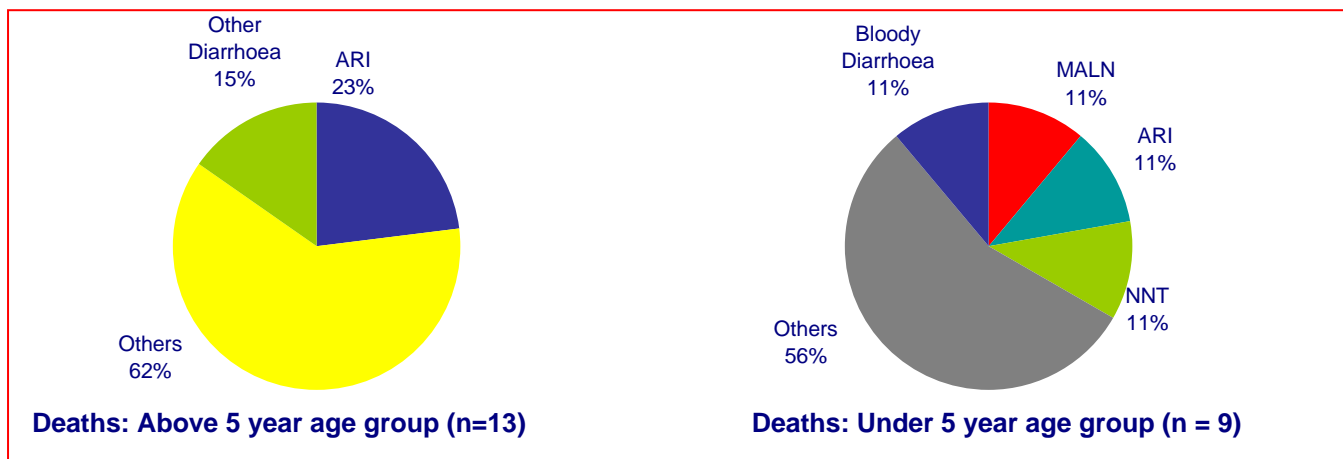


Figure 4: Proportion of all reported deaths, Greater Darfur, Sudan, 10 – 16 March 2007

Distribution of reported cases and case fatality rate

During the current reporting week, the **CFR** (Figure-5) for **NNT** was highest (100%) followed by **Severe Malnutrition** (1.1%), Bloody Diarrhoea (0.18%) and ARI (0.02%) in the less than 5 year age group. No death was reported from any other category excepting “others”.

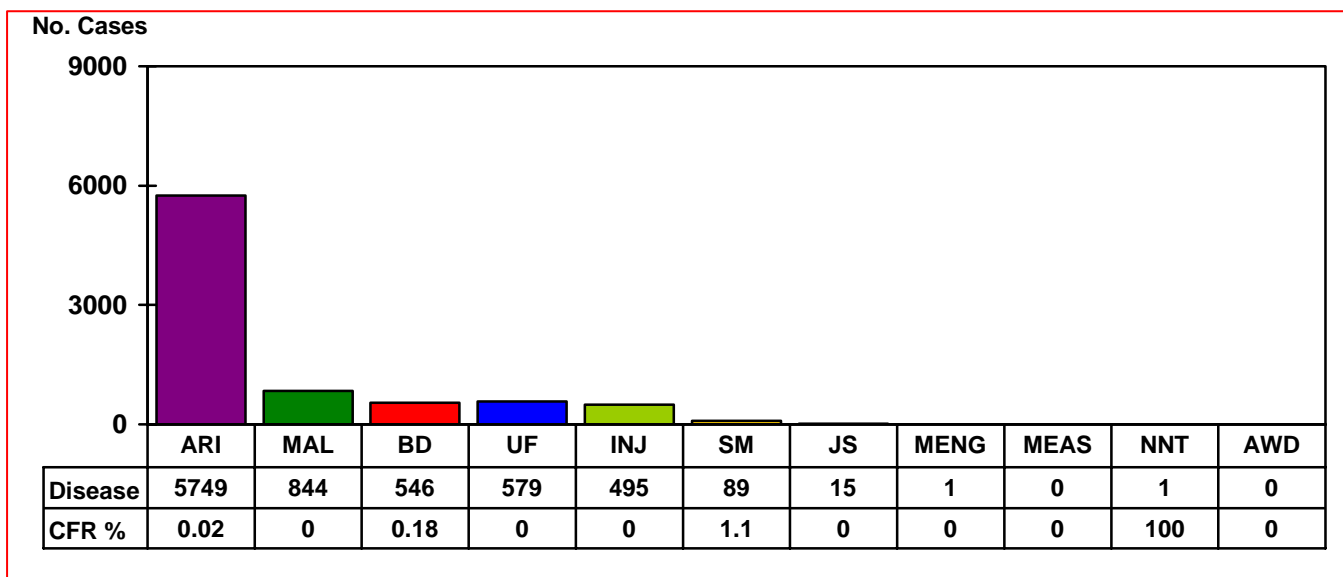


Fig.5: Distribution of reported cases and CFR in the under 5 year age group, Greater Darfur, 10 – 16 March 2007

On the other hand, in the above 5 year age group, CFR was the highest (0.1%) for the Injuries followed by ARI (0.05%). Also, there were 2 deaths due to “other diarrhea” (CFR: 0.16%) reported only from North Darfur. Additionally, 7 deaths (CFR: 0.03) were reported in the “others” category.

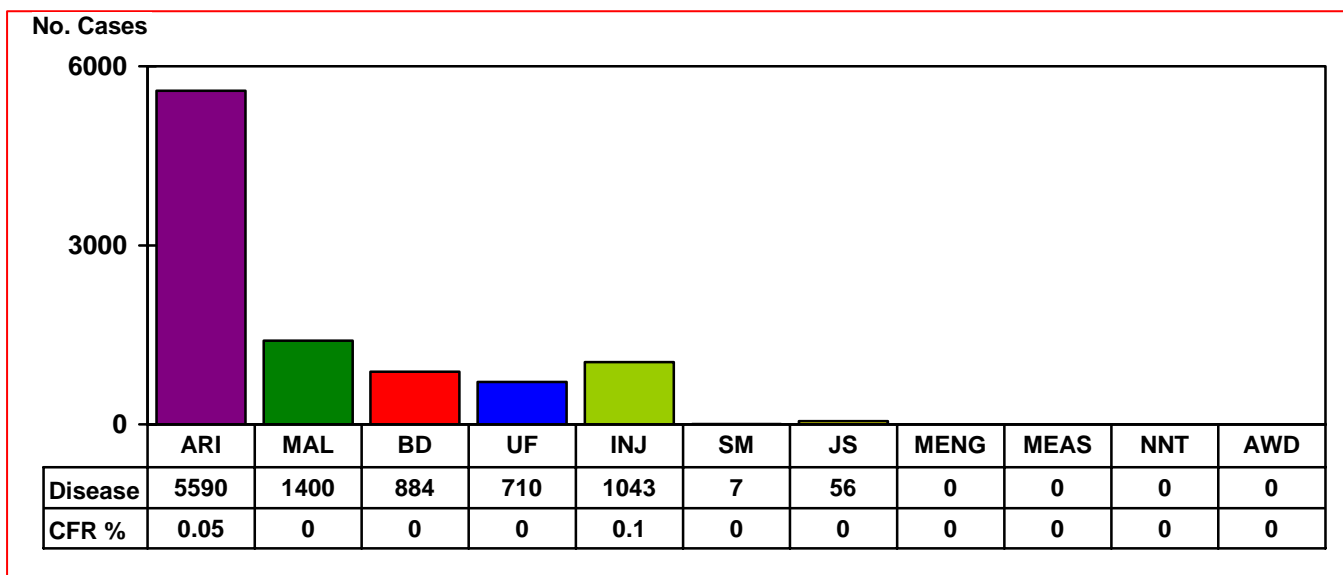


Fig.6: Distribution of reported cases and CFR in the above 5 year age group, Greater Darfur, 10 – 16 March 2007

Weekly incidence rate of selected endemic diseases

During the current week (10 – 16 March 2007), the case load of selected endemic diseases, barring Acute Jaundice Syndrome, were usual given the seasonality of these diseases reported earlier from Greater Darfur. Reported cases of Bloody Diarrhoea from West Darfur have increased significantly in last weeks.

Table-1: Cases and weekly incidence rate of selected endemic diseases reported from Darfur. (Epidemiological week 11: 10 – 16 March 2007)

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	3844	75.2	4590	90.6	2870	36.4
Bloody Diarrhea	215	4.2	619	12.2	585	7.4
Clinically Diagnosed Malaria	232	4.5	735	14.3	1193	15.1
Acute Jaundice Syndrome	11	0.2	21	0.4	39	0.5

Excepting for the weekly incidence rate of AJS reported from South Darfur, no “unusual trend” was observed for other epidemic prone diseases this week. For Acute Respiratory Infection, the global average rate for whole of Darfur, reported this week, was 61 cases/10,000 populations. The same for the north, west and south Darfur were 75.2, 90.6 and 36.4 per 10,000 respectively. For Clinically Diagnosed Malaria, the highest weekly incidence rate was in South Darfur (15.1 cases/10,000) and the lowest was in North Darfur (4.5 cases/10,000) while the global average rate for Greater Darfur, reported this week, was 11.6 cases per 10,000. The weekly incidence rate for Bloody Diarrhea was highest in West Darfur (12.2 cases/10,000) followed by South Darfur (7.4 cases /10,000) and North Darfur (7.6 cases/10,000). The global average rate for Bloody Diarrhoea reported from Greater Darfur this week was 7.4 cases per 10,000. The weekly incidence rate of Acute Jaundice Syndrome was highest in South Darfur (0.5 case/10,000) while the global average rate for Acute Jaundice Syndrome reported from Greater Darfur, this week, was 0.4 case/10,000.

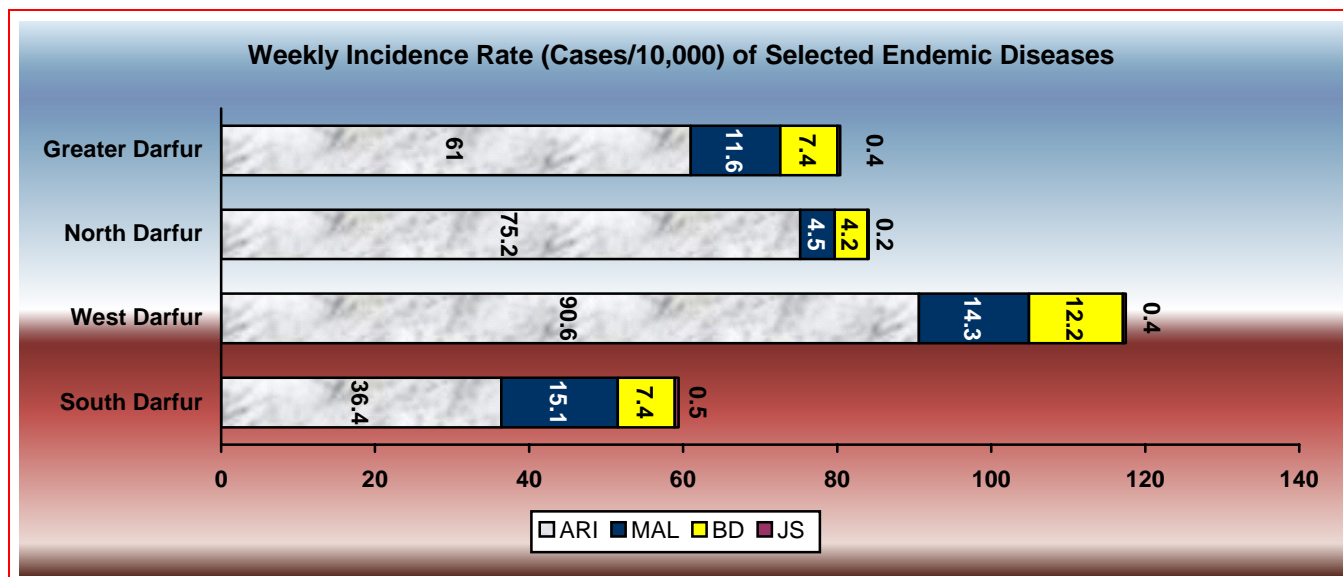


Figure 7. Reported weekly incidence rate of selected communicable diseases, Greater Darfur, Sudan, 10 – 16 March 2007

Surveillance for Measles

From 1 January 2005 to date, the EWARS has notified **493** clinically diagnosed measles cases from Greater Darfur with 2 deaths. During the current week, no case was reported from Darfur.

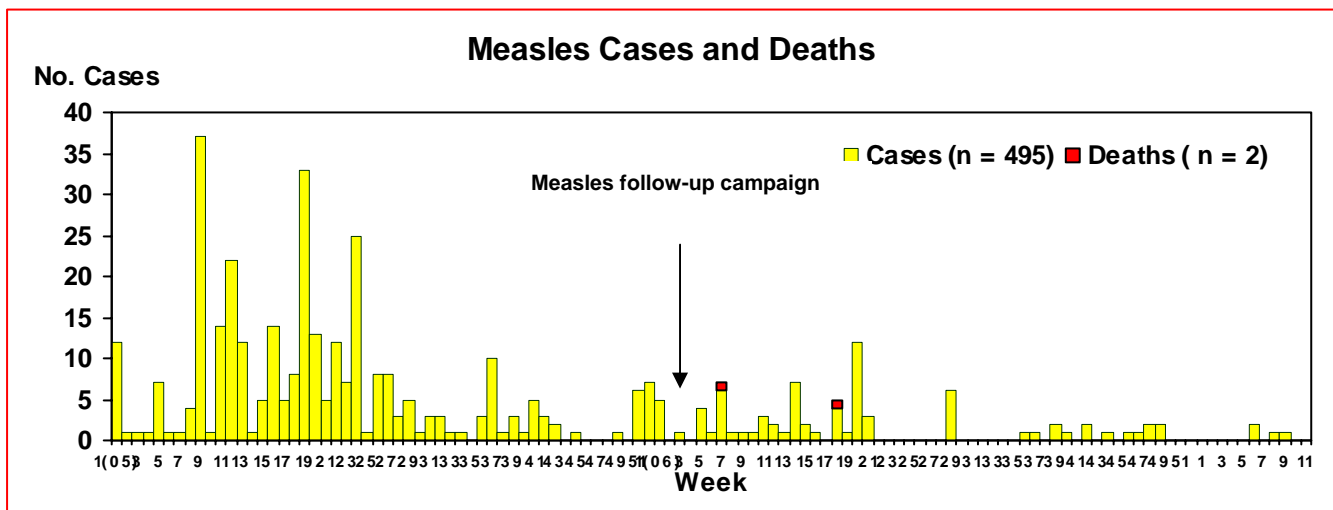


Figure 8. Weekly reporting of measles cases and death, Greater Darfur, 1 January 2005 to 16 March 2007.

Surveillance for Malaria

With the onset of high risk season for malaria in Darfur, epidemiological surveillance for malaria has been enhanced throughout Greater Darfur. The weekly attack rate of malaria for the current epidemiological week was observed to be **1.16 cases per 1000** (Figure-9) which is below the mean attack rate (3 cases per 1000) of malaria observed during 2006 as well as below the historical value (past attack rates observed during the same period in 2006).

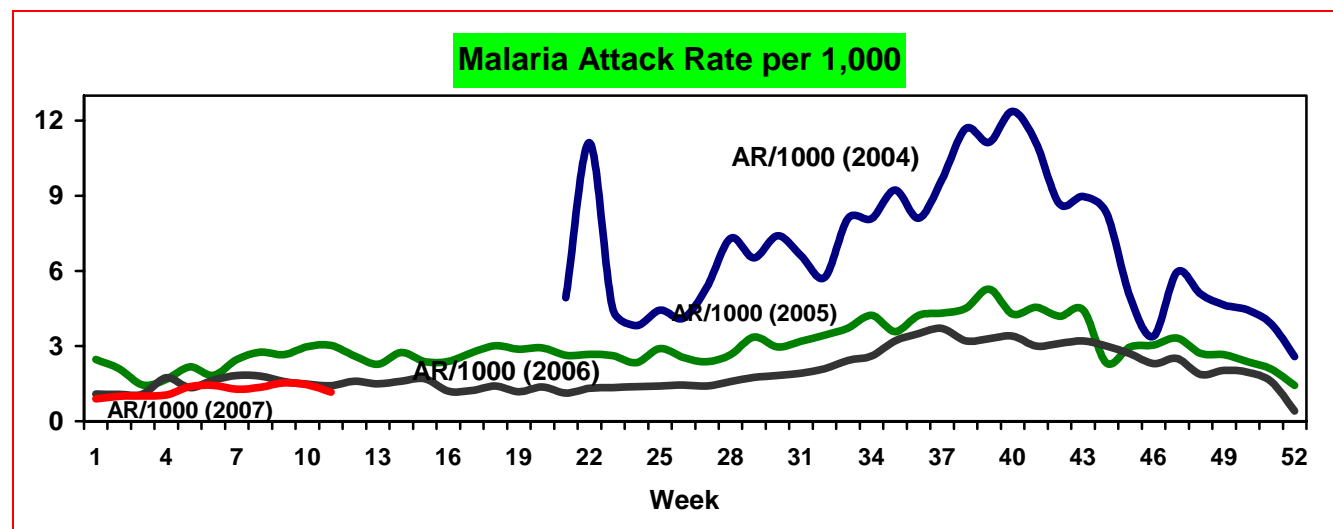


Figure-9: Comparison of current attack rate of malaria with historical value

Surveillance for Bloody Diarrhoea

The attack rate of bloody diarrhoea, observed during the current week, was **7.4 cases per 10,000** which is below the attack rate (9.2 cases per 10,000) observed during the same period in 2006 (Figure-10). West Darfur continues to report significantly higher rates compared to North and South Darfur.

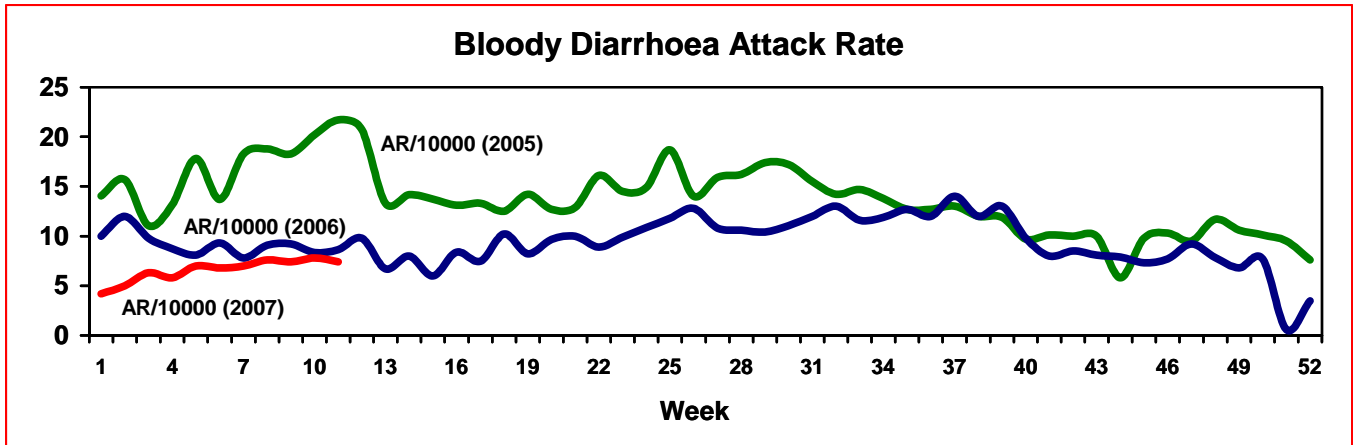


Figure-10: Comparison of current attack rate of Bloody Diarrhoea with historical value

Acute Jaundice Syndrome in South Darfur

An outbreak of Hepatitis-E has been laboratory confirmed in Ottash camp of South Darfur. Out of 20 serum samples, 17 samples have been tested positive for IgM by ELISA test at the National Public Health Laboratory (NPHL) of Khartoum. Increased numbers of Acute Jaundice Syndrome cases were being reported from the camp from Week 3 onwards and during epidemiological week 6, highest number of cases (165 cases with an incidence rate of 27 cases /10,000) were reported from the camp. Improvement of environmental health including hygiene promotion has been strengthened throughout the camp through collaborative efforts between the State Ministry of Health (SMOH) of South Darfur, Water and Environmental Sanitation department, WHO, UNICEF and other NGOs partners. Surveillance for monitoring the progression of the outbreak has also been enhanced. Although week 10 reported an increase, cases of AJS have continued to decrease significantly in last several weeks.

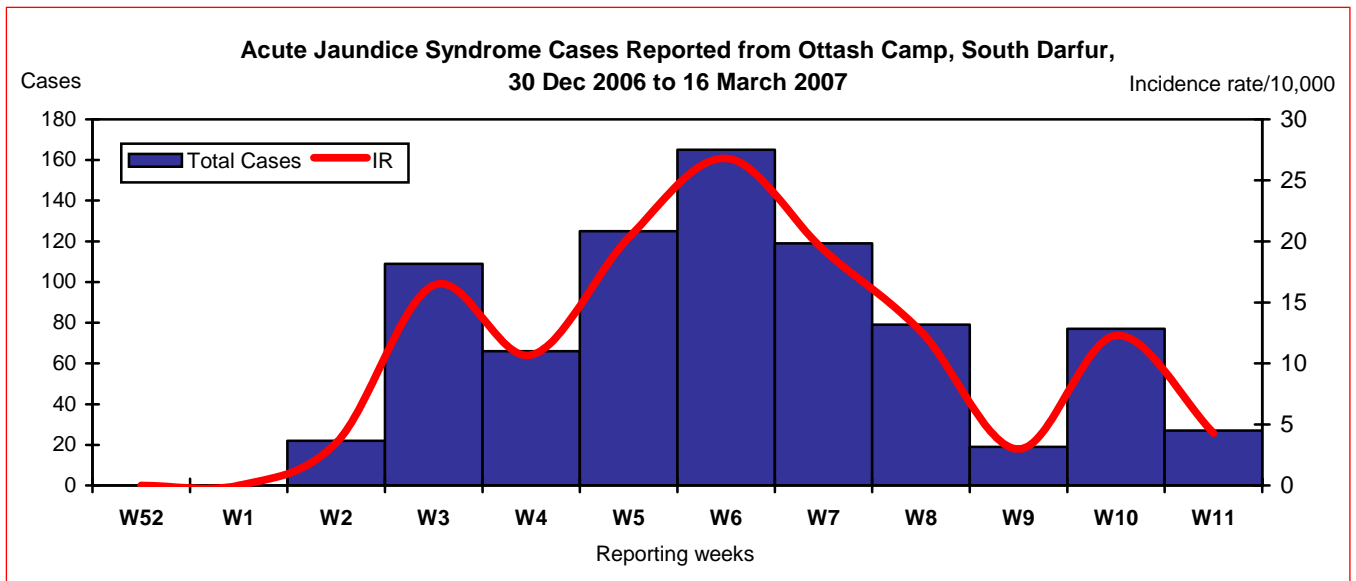


Figure-11: Weekly progression of Acute Jaundice Syndrome cases in Ottash camp, South Darfur