

Highlights

📊 The weekly reporting timeliness of EWARS, this week, was 78% against a set target of over 85%.

📊 The number of population under surveillance for the current week was 1.8 million representing a coverage of over 90% of IDPs currently living in Greater Darfur.

📊 ARI remains the major cause of reported morbidity and mortality in Greater Darfur.

📊 In consistent with seasonality, the weekly incidence rate of endemic diseases continue to show a stable trend through out Greater Darfur.

📊 Two “outbreak alerts” were flagged by the EWARS this week, one each for measles and meningococcal disease.

📊 An outbreak of meningococcal meningitis caused by *Neisseria meningitidis sero group W135* has been confirmed from Hamidiya camp of Zallingi in West Darfur.

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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.

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Reporting timeliness

During the current week, 99 out of 126 reporting units (78%) 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% but during the past few weeks (Figure-1) this target was far from being achieved. The trend shows that from the 48th reporting weeks of 2005 onwards, there has been a drop in reporting timeliness of the EWARS mostly due to worsening security situation across Greater Darfur. However, from the 3rd epidemiological week of 2006 onwards, there has been significant improvement in reporting timeliness of the EWARS.

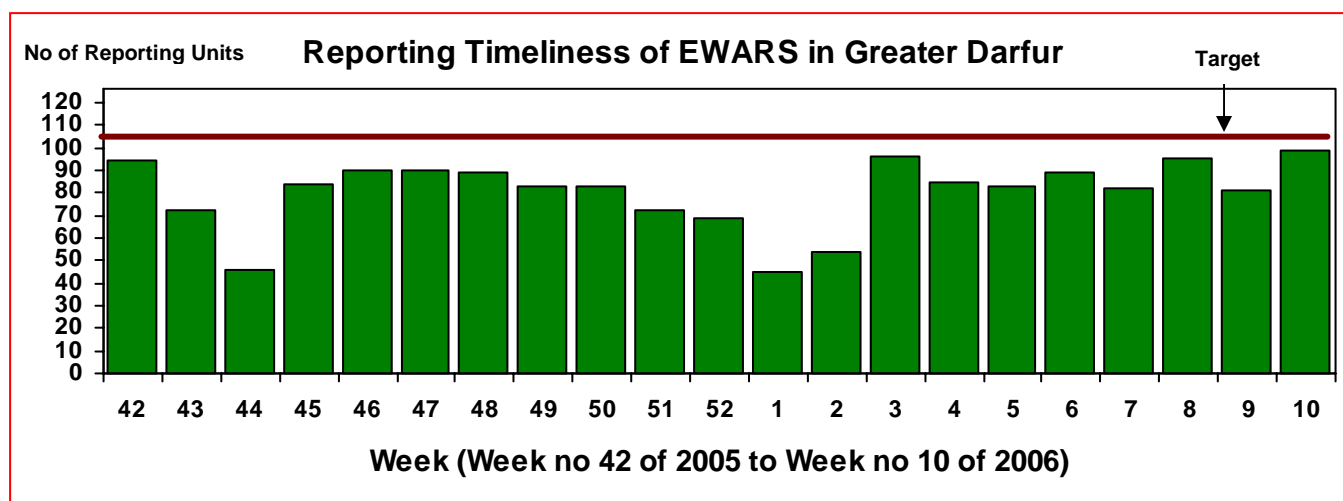


Figure 1. Reporting units, Greater Darfur, Sudan, October 2005 to 10 March 2006

Population under surveillance and consultations

Although the number of reporting units has increased from 81 last week to 99 this week, the total number of **consultations** reported throughout Greater Darfur has decreased from 66,208 last week to 59,938 this week. The number of **population under surveillance**, reported for the current week, is 1,861,951 which shows a increase by over 6% reported in the previous week (From 1,762,860 reported last week to 1,861,951 reported this week). The **health facility utilization rate** decreased this week from 1.9 visits/person/year reported in the preceding week to 1.6 visits/person/year reported this week. (Figure-2)

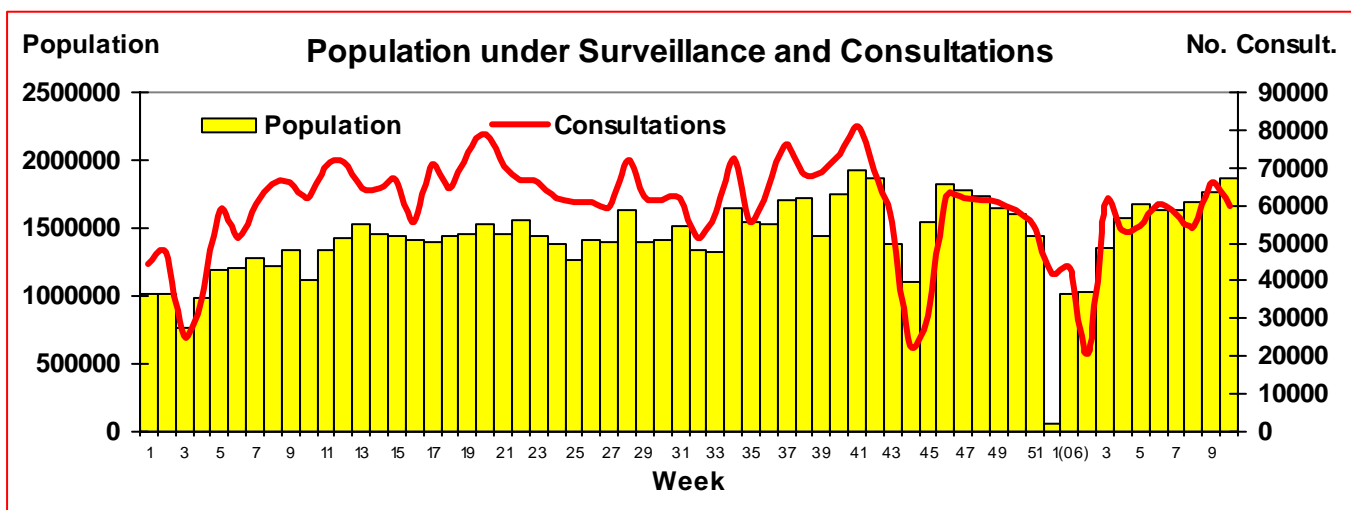


Figure 2. Weekly distribution of population under surveillance and consultations, Greater Darfur, Sudan, 1 Jan 2005 –10 March 2006.

Proportional morbidity and mortality reported during the week

From 4-10 March 2006, a total of 59,938 cases of health events under surveillance were reported from all age groups. Of these, 21,020 (35%) cases of health events were reported from under 5 year age group while the remaining 38918 (65%) cases of health events were reported from above 5 year age group. In the above 5 year age group, excepting the category “others”, 13% (5012) of reported cases were due to **Acute Respiratory Tract Infection (ARI)** followed by **Clinically Diagnosed Malaria (5%)** and **Injury (3%)**. By comparison, 23% (4842) of reported cases in the under 5 year age group was attributed to **Acute Respiratory Tract Infection (ARI)** and followed by **Clinically Diagnosed Malaria (5%)** and **Bloody Diarrhoea (3%)**

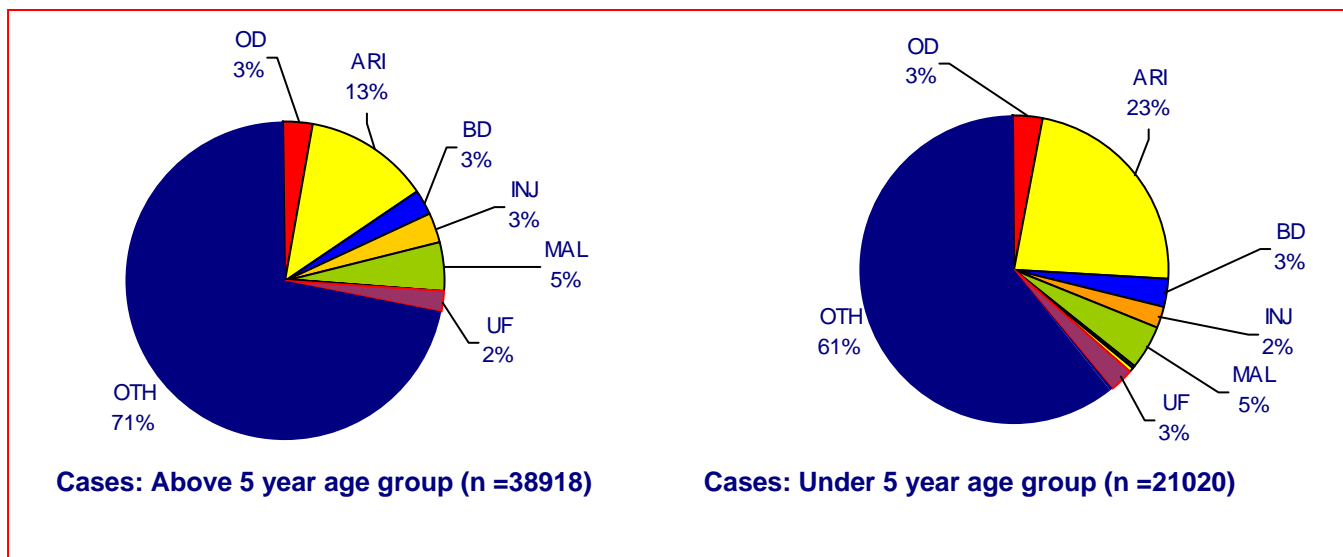


Figure 3: Proportion of all reported cases, Greater Darfur, Sudan, 4-10 March 2006

During the same period, there were **36 reported deaths** in all age groups (Figure-4). There were 19 reported deaths in the **under 5 year age group** this week representing 52% of total deaths reported from Greater Darfur during the same week. Of these, 2 deaths, (33%) were due to **Acute Respiratory Infection** and 1 death (17%) was due to **Sever Malnutrition**. The overall **Case Fatality Rate (CFR)** for children under 5 years for the current epidemiological week was **0.09%**. In the above 5 year age group, excepting the category “others”, majority of deaths (17%) were due to **Injury**. Other reported deaths were attributed to Malaria (6%). The overall **Case Fatality Rate (CFR)** for cases above 5 year age group for the current epidemiological week was **0.04%**.

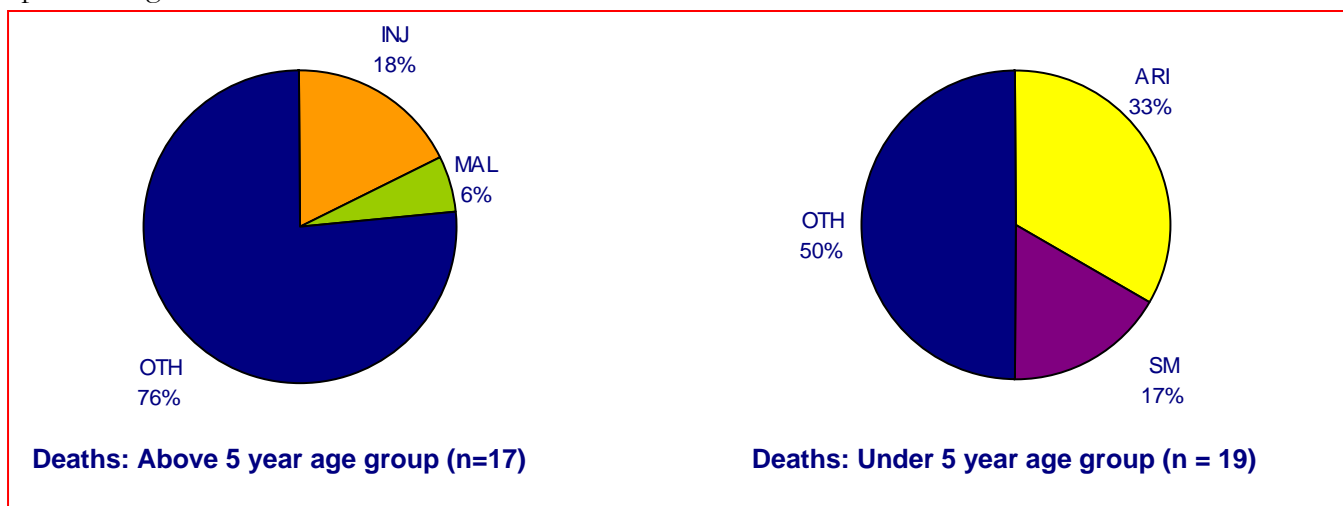


Figure 4: Proportion of all reported deaths, Greater Darfur, Sudan, 4-10 March 2006

Distribution of reported cases and CFR in Greater Darfur

During the current reporting week, although **ARI** was the most common morbidity reported in the **under 5 year age group**, the **CFR** for **Sever Malnutrition** (Figure-5) was the highest (**1.13%**) compared with any other health event in the under-5 year age group, followed by **Acute Respiratory Infection** (**0.04%**).

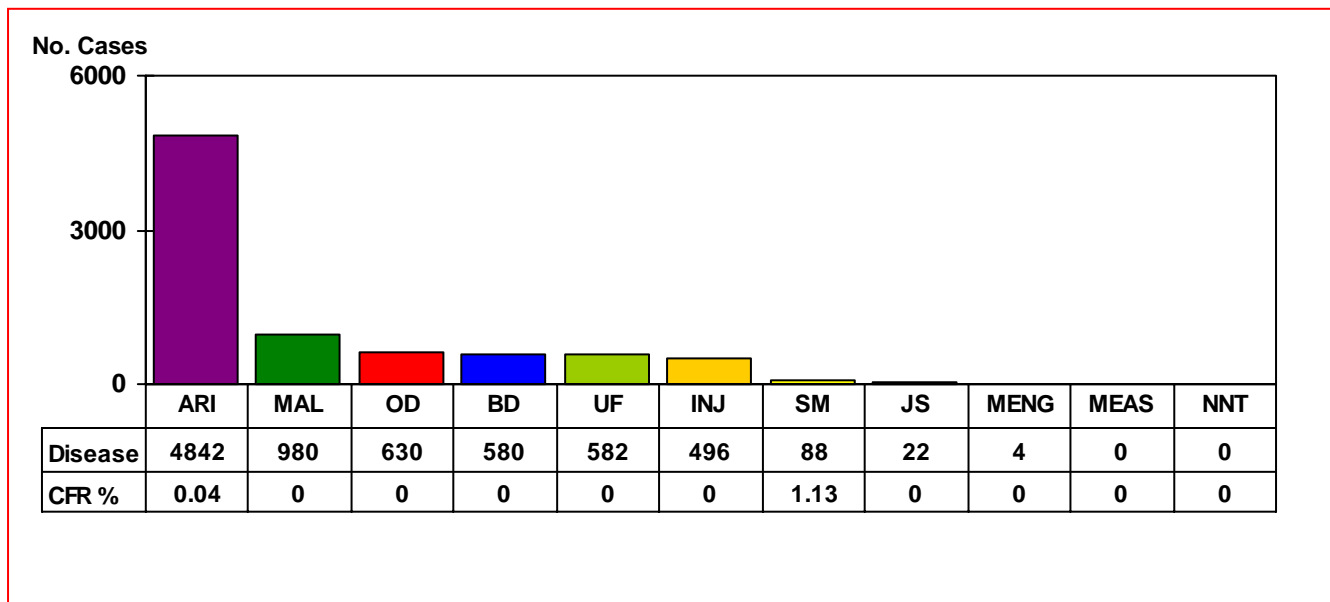


Figure 5. Distribution of reported cases and CFR in the under 5 year age group, Greater Darfur, 4-10 March 2006

On the other hand, in the above 5 year age group, **Injury** (**0.25%**) had the highest **Case Fatality Rate** (Figure-6) followed by **Clinically Diagnosed Malaria** (**0.05%**).

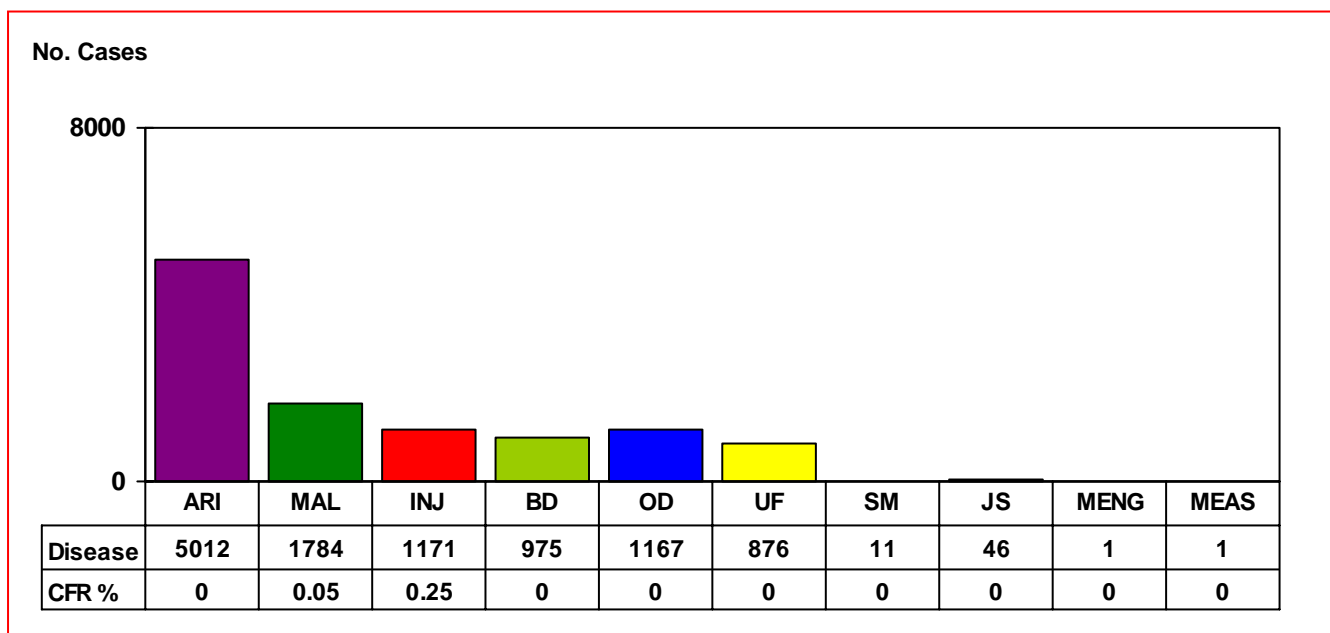


Figure 6. Distribution of reported cases and CFR in the above 5 year age group, Greater Darfur, 4-10 March 2006

Reported weekly incidence rate of selected endemic diseases

During the current week (4-10 March 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-10: 4-10 March 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	2381	73.3	3864	68.1	3609	37.8
Bloody Diarrhoea	202	6.2	692	12.2	661	6.9
Clinically Diagnosed Malaria	110	3.4	677	11.9	1977	20.5
Acute Jaundice Syndrome	1	0.0	27	0.5	40	0.4

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 53 cases/10,000 populations. However, excepting South Darfur, the weekly incidence rate of ARI reported from North (73 cases/10,000) and West Darfur (68 cases/10,000) were higher than the global average for Greater Darfur. For Clinically Diagnosed Malaria, the highest weekly incidence rate was in South Darfur (20 cases/10,000) and the lowest was in North Darfur (3 cases/10,000) while the global average rate for Greater Darfur reported this week was 16 cases /10,000. The weekly incidence rate for Bloody Diarrhoea was highest in West Darfur (13 cases/10,000) and lowest in North Darfur (3 cases/10,000) while the global average for Greater Darfur observed this week was 8 cases /10,000. The weekly incidence rate of acute jaundice syndrome in any of the three Darfur states has not shown any perceptible increase than the global average of Greater Darfur which was reported to be 0.3 case/10,000 this week

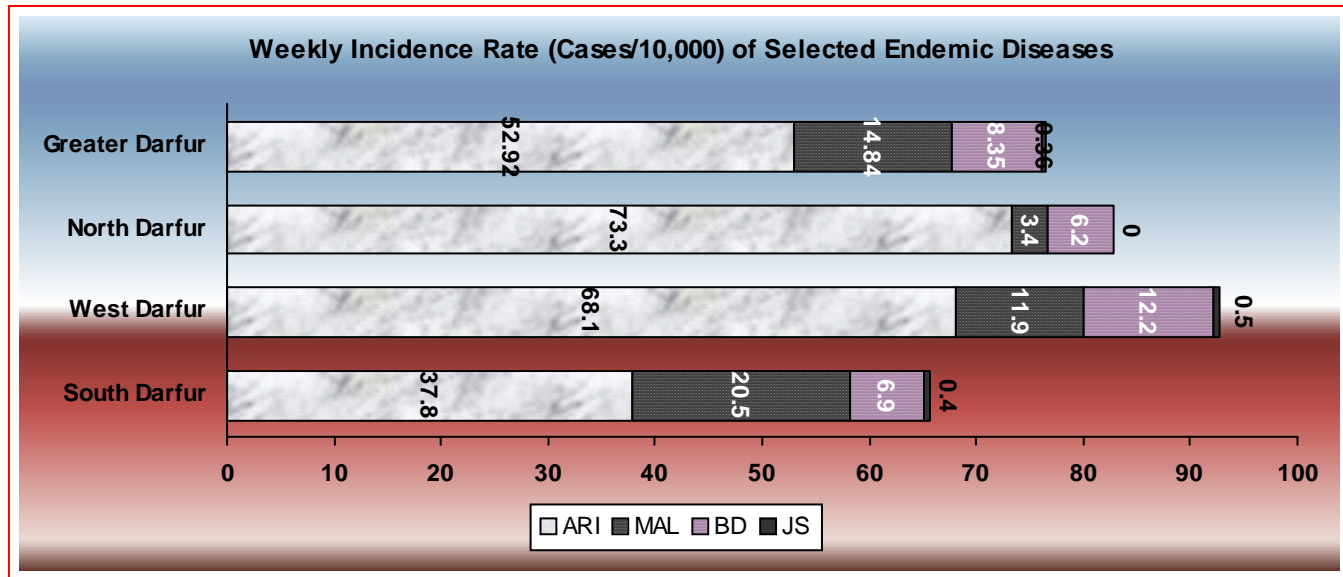


Figure 7. Reported weekly incidence rate of selected communicable diseases, Greater Darfur, Sudan, 4 -10 March 2006

Surveillance for Measles

The surveillance data of EWARS has notified **438** clinically diagnosed measles cases from Greater Darfur, so far (from 1 January 2005 to date), with 1 death. During the current week one case was reported from West Darfur.

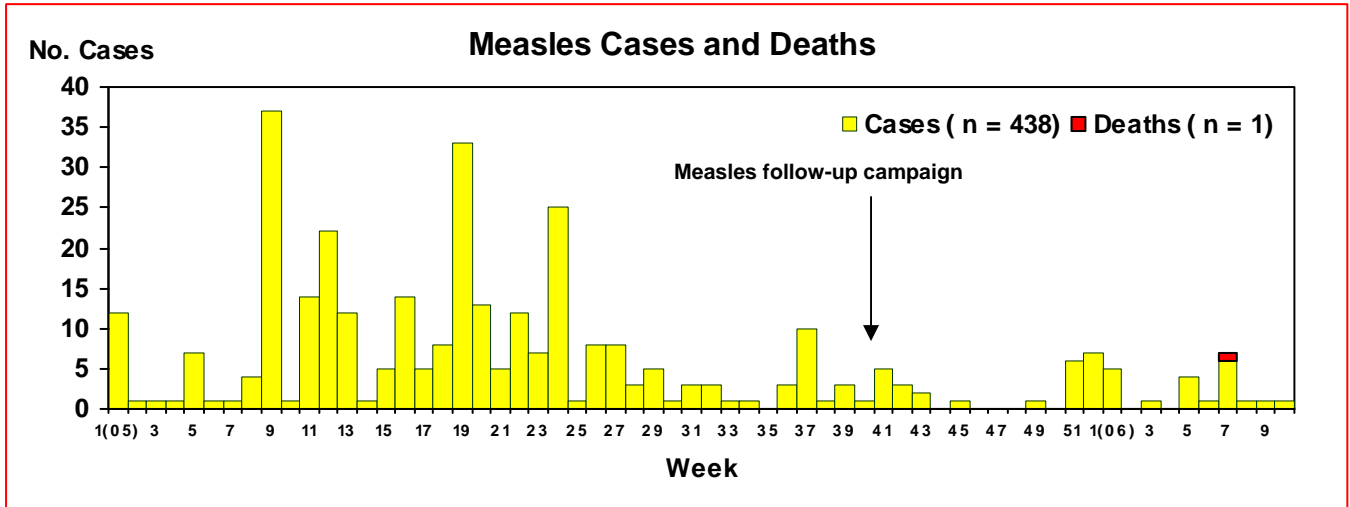


Figure 8. Weekly reporting of measles cases and death, Greater Darfur, 1 January 2005 to 10 March 2006.

Surveillance for Malaria

With the onset of winter season, the attack rate as well as proportional morbidity attributed to malaria dropped across Greater Darfur. The current weekly attack rate of malaria, observed throughout Greater Darfur, is **1.5 cases /1000** which is not above the historical value (past attack rates observed during the same period in 2005) and well below the **mean attack rate** (4.63 cases/1000) observed in 2005 across Greater Darfur (Figure-9). However, in South Darfur, the weekly attack rate of malaria was observed to be 2 cases/1000 which is slightly above than the average recorded for Greater Darfur this week (1.5 cases/1000)

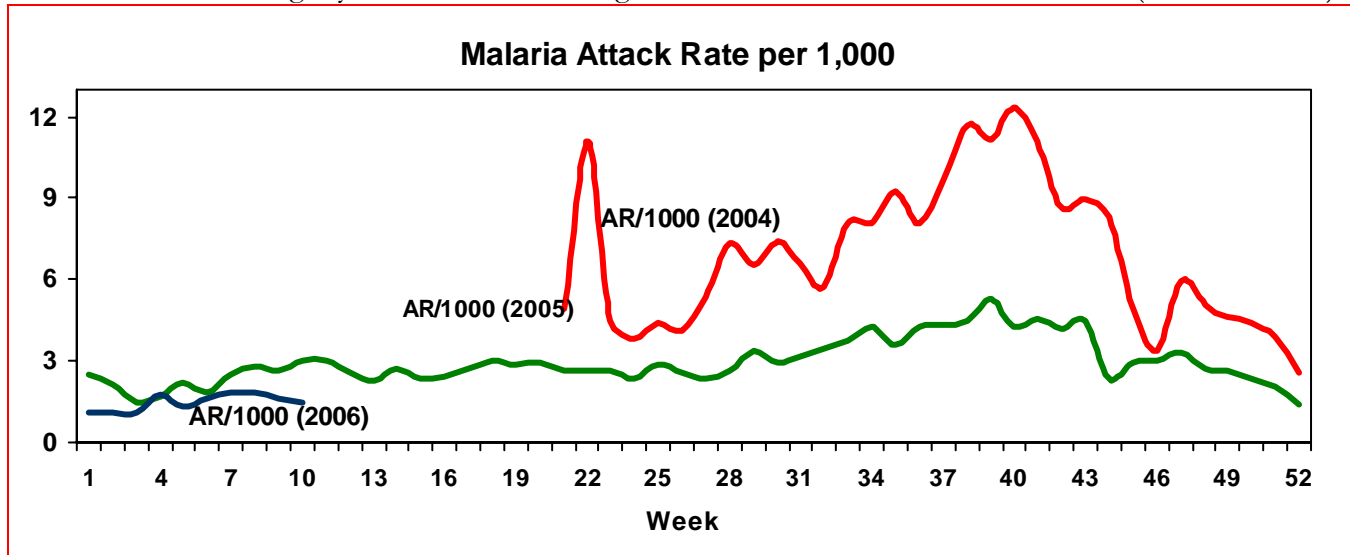


Figure-9: Comparison of current attack rate of malaria with historical value

Surveillance for Bloody Diarrhoea

The attack rate of bloody diarrhoea observed during the current week is **8.3 cases /10,000** which is below the attack rate observed during the same period (week no 10) in 2005 (Figure-10). Slightly higher attack rate is observed in West Darfur compared to either North or South Darfur

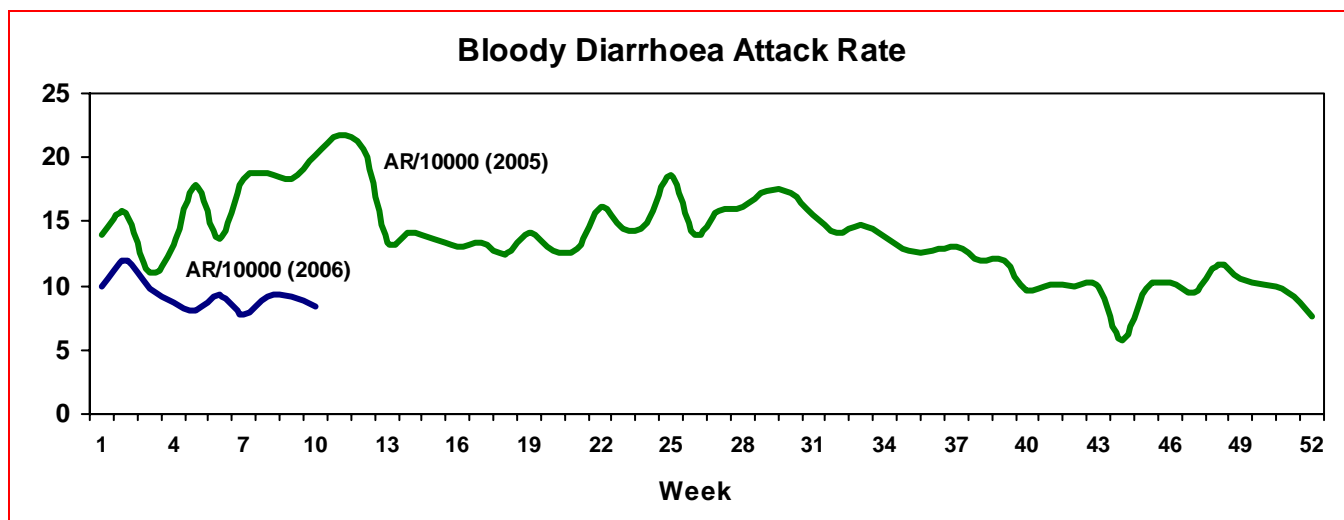


Figure-10: Comparison of current attack rate of Bloody Diarrhoea with historical value

Outbreak Alert and Response

During past ten weeks, a total of twenty-one (21) outbreak “alerts” were raised (Figure-11) by the EWARS in Greater Darfur. Highest number of alerts were flagged in week no 3 (Reporting period: 14-20 January, 2006), week no 8 (Reporting period: 18-24 February 2006) and in week no 9 (25 Feb-3 March 2006)

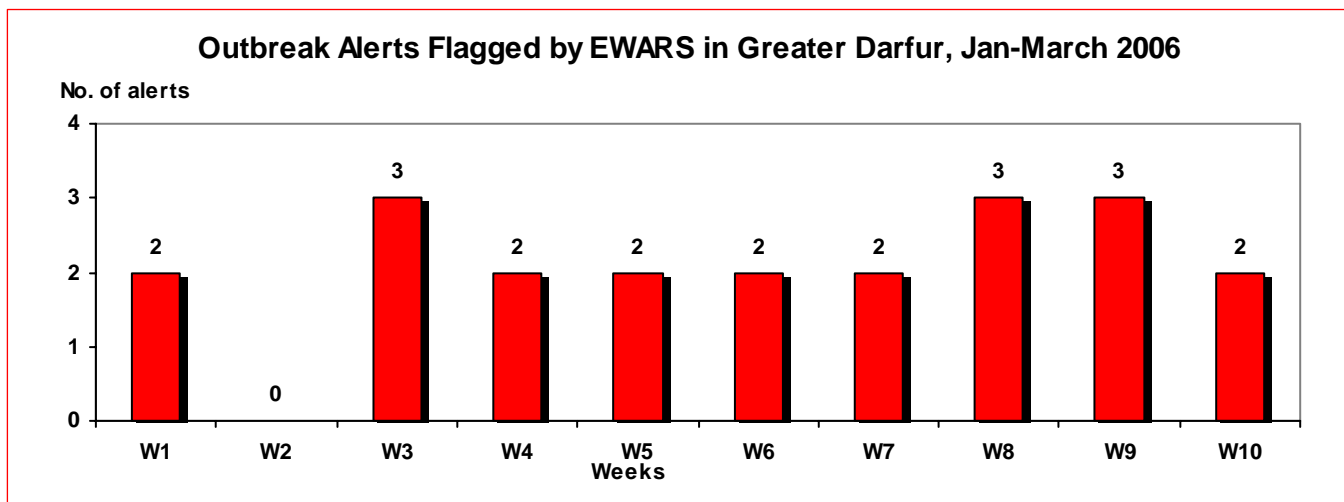


Figure-11: Outbreak alerts by week, Greater Darfur, Sudan, January-March 2006

During the current week, two “alerts” were flagged by the EWARS, one each for clinically diagnosed measles and suspected meningococcal disease. All these “alerts” were investigated jointly by WHO and the rapid response teams of the SMOH in Greater Darfur. The investigation consisted of active case finding, appropriate case management, collection of biological samples for laboratory confirmation as well as detection of clustering of cases with epidemiological linkage.

Table-2: Classification of outbreak alerts and interventions undertaken .

Classification of “alerts” flagged by the EWARS	Number of cases flagged	Reporting Place	Reporting State	Interventions undertaken
Measles	1	Hasshissa	West Darfur	Blood sample has been collected for laboratory confirmation
Meningococcal Disease	5	<ul style="list-style-type: none"> • 2 cases from Hamidyia camp • 1 case from Zallingi town; and • 2 cases from Hasshissa camp 	West Darfur	Active case finding ongoing and all suspected cases are being treated as probable cases since an outbreak has already been confirmed in the area.

Outbreak of meningococcal meningitis in West Darfur

An outbreak of meningococcal disease caused by *Neisseria meningitidis sero group W135* has been confirmed at Hamidyia IDP Camp in Zallangi town of West Darfur during week no 8 when two laboratory samples were tested positive by culture in the same week and *Neisseria meningitidis sero group W135* was isolated as the causative strain. Upto week no 10, (Figure-12), a total of 28 cases and 1 death (case fatality rate: 3.57%) have been reported from this camp and

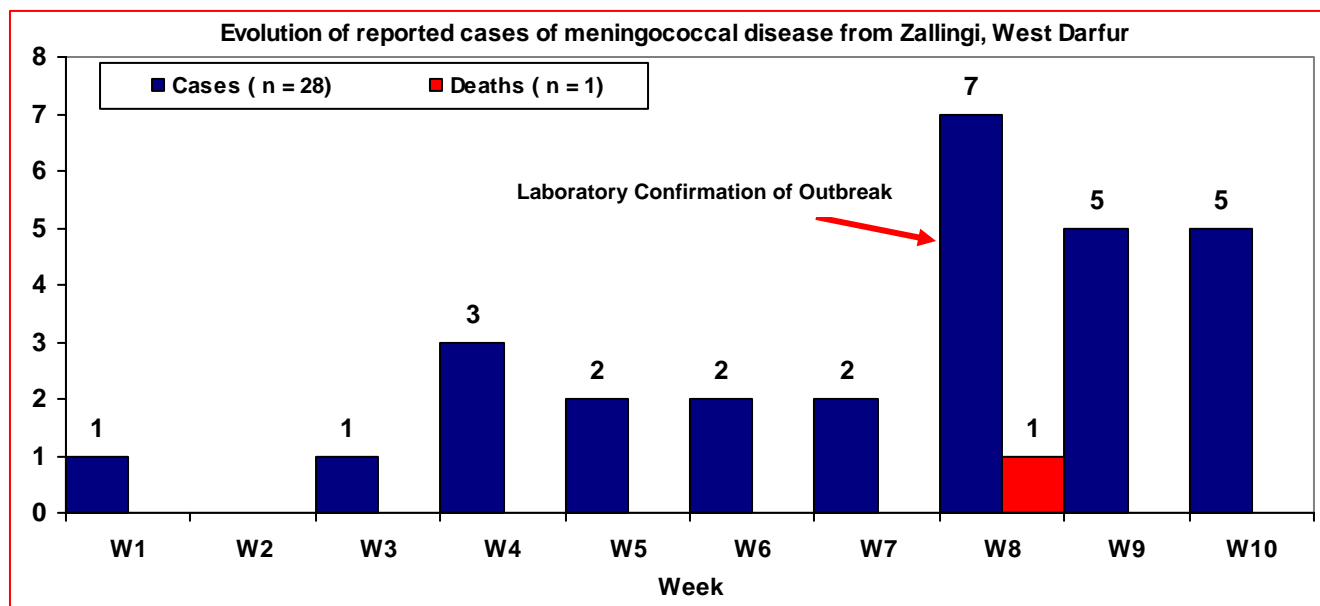


Figure-12. Reported cases of suspected meningitis, Zallangi, West Darfur, 1 January 2005 to 10 March 2006

With all the evidence (including laboratory confirmation) of an outbreak of meningococcal disease caused by *Neisseria meningitidis sero group W135 strain*, ongoing, in Hamidyia camp of Zallangi, a reactive mass vaccination campaign with trivalent ACW vaccines has been planned for control and management of this outbreak as well as for interrupting the transmission of *Neisseria meningitidis sero group W135* strain in other parts of Darfur.

Accordingly, all high risk population (between 2 to 30 years) living in the Hamidyia camp have been targeted for vaccination. However, considering the close proximity of the town to this IDP camp as well as owing to other environmental, climatic and epidemiological factors, all the high risk population (between 2 to 30 years) amongst the 30,000 host population living in Zallangi town have also been targeted for vaccination with trivalent ACW vaccines in order to completely stop the transmission of this virulent strain and prevent spreading of this outbreak into the host population. The public health interventions, currently ongoing in the area, to respond to this outbreak include reinforcement of surveillance for meningococcal diseases, active case findings, standardized case management of all suspected and probable cases with Inj. Oily Chloramphenicol as well as continuous public health risk assessment in and around the epicentre of the outbreak.

Meningococcal disease in rest of Darfur

Suspected cases of meningococcal diseases have also been reported from other parts of Darfur. As of date, 30 cases of suspected meningococcal diseases with 1 death (CFR: 3.33%) have been reported from the IDP camps across Darfur. This number includes cases reported from Zallangi of West Darfur.

Of these, only 3 cases (10%) have been laboratory confirmed. Two cases have been laboratory confirmed during week no 8 from Hamidiya camp of Zallangi in West Darfur (In both these cases, the causative strain isolated was *Neisseria meningitidis sero group W135 strain*), while one case was laboratory confirmed from Korma camp in North Darfur (In this cases, the causative strain isolated was *Neisseria meningitidis sero group A*). After laboratory confirmation of one case from Korma camp, surveillance for meningococcal diseases has been reinforced with active case finding, close monitoring of household contacts, collection of case based data as well as sampling of all suspected cases.

