Malaria Surveillance Bulletin

DIVISION OF MALARIA CONTROL (DOMC) ▪ ISSUE 2 ▪ SEPTEMBER 2012

Message from the Program Manager

I am pleased to welcome you to the 2nd edition of the Malaria Surveillance Bulletin from the Division of Malaria Control. In this issue, we present data on six surveillance graphs to demonstrate the performance in key malaria indicators over the last quarter July t.o September 2012. We have added a sixth graph on reporting rates to the five that were covered in our inaugural issue.

During this quarter, we made signifi cant progress towards the implementation of the T3 policy that require all malaria treatment to be on the basis of diagnostic confirmation. A colorful launch of the rapid diagnostic tests (RDTs) in the country took place in October, with an approximately 8 million RDTs kits expected to be distributed to all public health facilities in the country.

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Significant Progress in the First Quarter of Financial Year 2012/2013

As part of the roll out plan, the DOMC is embarking on a one-day national training on the use and reporting of RDTs covering all the public health facilities. The training, which is being conducted in conjunction with the Management Science for Health (MSH) health commodities and service management project, is expected to significantly improve the diagnostic capacity of our health facilities. In addition, the RDTs will go a long way in promoting rational use of anti malarial drugs, and invest our meager resource on the basis of evidence.

Another key highlight for the quarter was the successful completion of a rapid assessment in epidemic prone districts to identify the needs and plan the way forward in epidemic preparedness and response within these areas. The assessment was conducted in conjunction with MEASURE Evaluation and the analysis is currently underway. Some of the preliminary findings indicate the need for more effort towards improving data capture, verification and use at the health facility level.

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Going forward, the mass long lasting insecticide-treated (LLIN) distribution exercise is expected to be concluded in Bomet and Nandi districts in October. We have also embarked on the fifth quality of care (QoC) study whose main objective is to monitor progress in achieving the national malaria strategy (NMS) targets, in terms of the availability of malaria case management commodities and evaluate the quality of outpatient malaria case management practices in public health facilities. The report of the fourth round of the QoC study was finalized, and noted a gradual increase in the composite indicator measuring health worker practicess. Overall, the report stressed the need to pay close attention to the quality and completeness of the data collected.

Other key activities scheduled for this quarter include undertaking a drug availability study in the private retail sectors, as part of the winding up of activities under Affordable Medicine Facility–malaria (AMFm) and the training of both community health workers and private sector health workers on use of RDTs.

Practice View

In this issue, we present six graphs covering surveillance, logistical aspects and reporting rates for each data source. These graphs -generated from the routine data sources that include the HMIS, DDSR weekly data reports and the LMIS- demonstrate the situation with regard to health facility diagnostic capability and malaria case management in Kenya.

WHO MALARIA CORE SURVEILLANCE GRAPHS

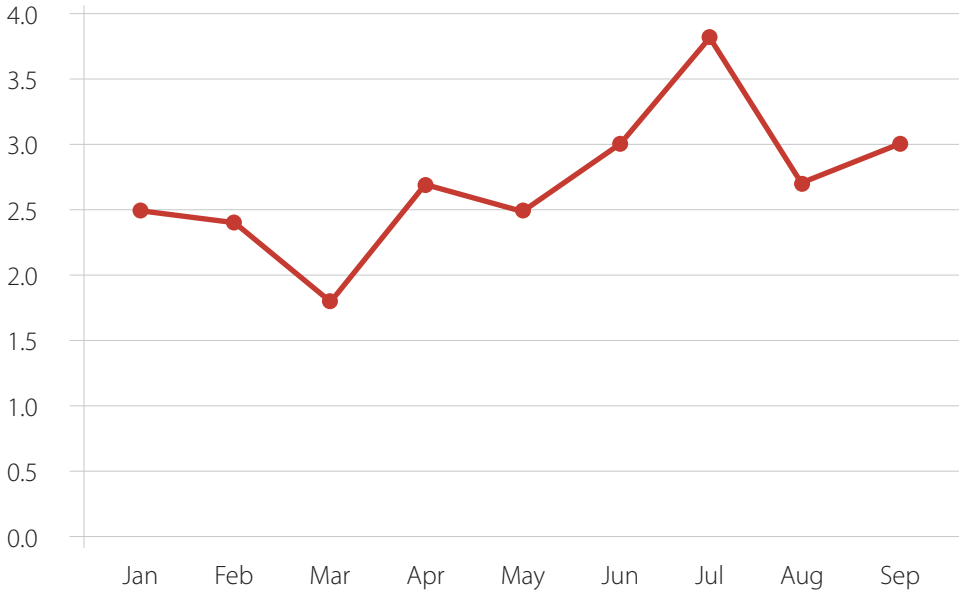
The 9 malaria core surveillance graphs are aimed at helping monitor the malaria situation in the country based on the recommendation by the WHO. The graphs shows performance in the nine core areas which include:

1. the outpatient malaria total positivity rate(TPR) among children under five years;
2. total inpatient malaria cases;
3. the total inpatient malaria deaths in children under five years of age;
4. the outpatient confirmed malaria cases and percentage of suspected malaria cases tested with positive based test;
5. outpatient all-cause cases and suspected malaria cases among across ages;
6. the percentage coverage of patients treated with (ACT);
7. the number of antenatal care (ANC) clients receiving insecticide-treated net (ITN) and the second dose of intermittent preventive treatment with sulphadoxime-pyrimethamine (IPT2);
8. the percentage of health facilities both with and without stock outs of artemisin based combination therapies (ACTs), RDT, and LLIN and the completeness of reporting; and
9. the percentageof health facilities and districts that report.

Outpatient Confirmed Malaria Cases

Graph 1 shows the percentage of outpatient suspected malaria cases that are confirmed to have malaria parasite by microscopy or RDT per 1000 people at risk. Ideally, a rate of less than 1 case per 1000 people indicates readiness for elimination phase. There was an observed steady increase in confirmed Malaria cases from April that peaks in the month of July before taking a downward trend. This surge in cases could be attributed to the rainy season (April to June).In July there was an outbreak of malaria in Pokot district and a team was sent from DOMC to help the district in mitigation of the outbreak.

Graph 1: Outpatient Confirmed Malaria Cases per 1,000 of Population, 2012

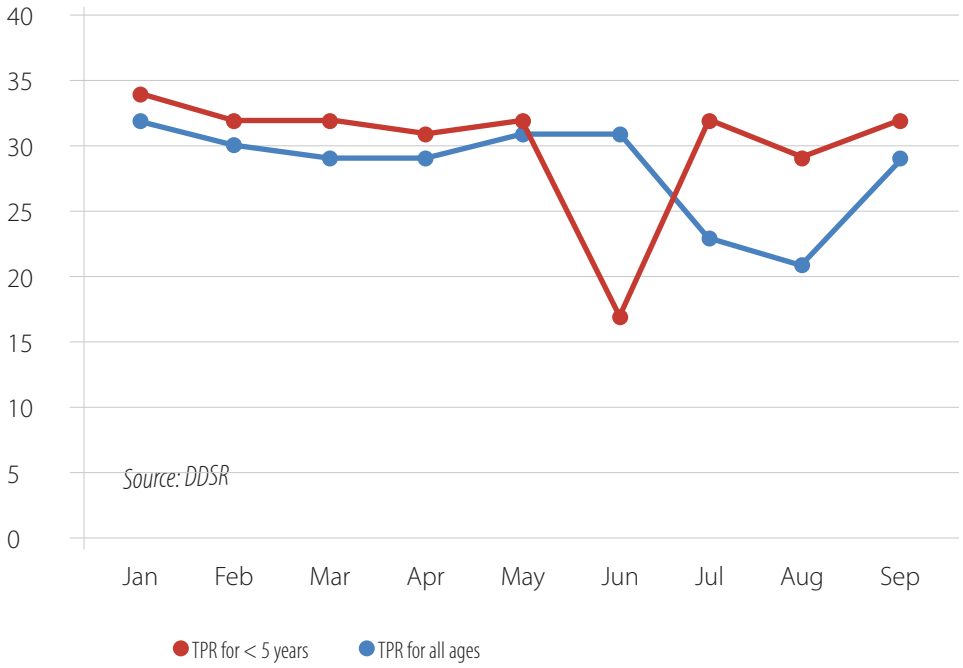


Sources: DDSR, HMIS, Census 2009

Outpatient Test Positivity Rates Among the Under 5 Years and All Ages

In graph 2, the outpatient test positivity rates for the under fives and all ages are presented. The graph is based on data from the weekly reports by the department of diseases surveillance and response (DDSR). The graph demonstrates the trends with regard to the percentage of the malaria cases that tested positive against the total number of cases tested for parasites over a period of five months.

Graph 2: Outpatient Test Positivity Rates <5 Years and All Ages, 2012

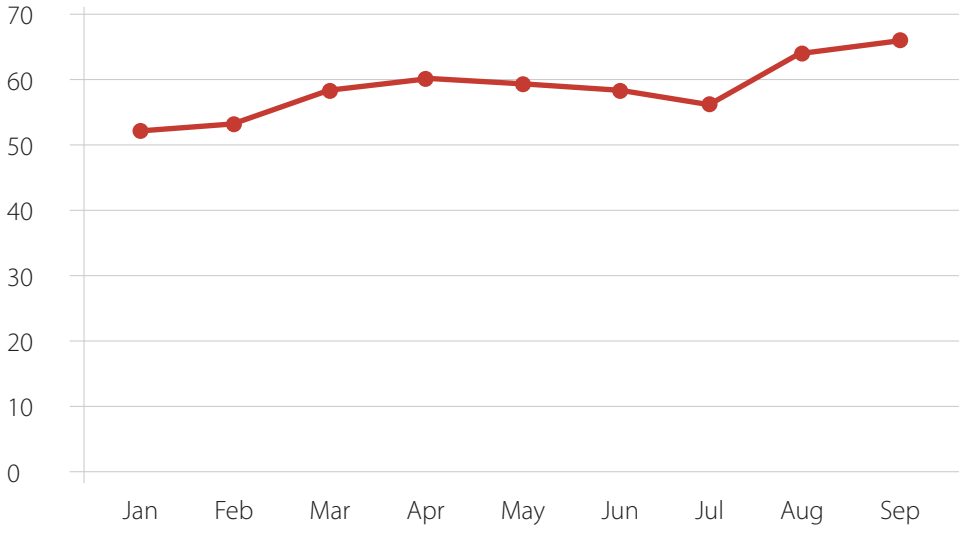


Overall there was a steady decline in the number of cases that tested positive for all ages from June to August 2012. However the number of malaria cases that tested positive among children less than 5 years of age increased between June and July 2012 with a slight decline in August.

Suspected Malaria Cases Tested with Parasite-Based Test

The diagnostic capability of health facilities in the country is illustrated through the data presented in graph 3, which is expressed as the percentage of the suspected malaria cases among the outpatient that underwent a laboratory diagnosis over the reporting period are presented. This demonstrates the diagnostics capability of health facilities in Kenya which is very low given the number of facilities that can perform microscopy.

Graph 3: Percentage of Suspected Malaria Cases Tested with Parasite-Based Test, 2012



Source: DDSR

There was a gradual increase in percentage of cases tested among suspected malaria cases from July to Sept (from 55% to 65%). This could partly be attributed to the ongoing RDT roll out in the country. Thus, with increasing utilization of RDTs in the country, the percentage tested is expected to continue to rising as the country aim to achieve the global target of 90% and above.

Coverage for Outpatients Treated with Artemisinin-Based Combination Therapy

Kenya has adopted the policy of testing before treatment and AL should only be administered to patients who are tested for malaria parasites using a parasitic laboratory test, and the results are positive.The ability of health facilities to achieve this has in the past been hampered by low coverage of the rapid diagnostic test kits (RDTs) or microscopy. Graph 4 demonstrates the percentage of outpatient cases that were treated using artemisinin-based combination therapy over the reporting period.

Graph 4: Percentage of Coverage with Outpatient Treated with Artemisinin-Based Combination Therapy, 2012

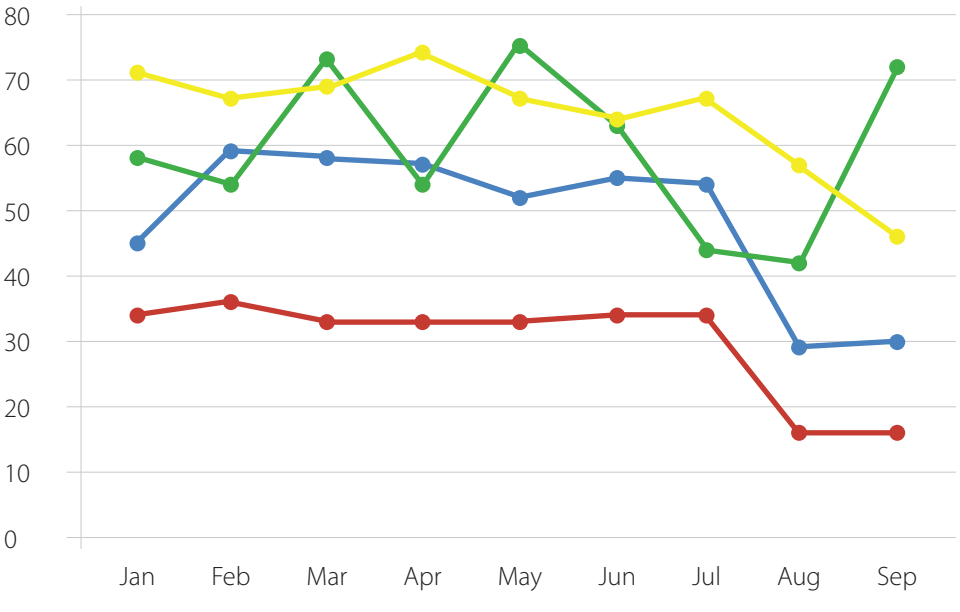
Source: DDSR/LMIS

The entire reporting period recorded more than threefold use of ACTs over the expected target (number of malaria cases with confirmed laboratory diagno- sis). This shows a very high percentage of suspected malaria cases are receiving anti-malarial (AL) treatment without proper diagnosis (microscopy or RDTs) as per the national guidelines. This is evident from the low percentage of testing rate of 55-65 percent (graph 3). With continued expansion of RDT uptake at all the health facilities in the country and continued RDT trainings it is expected that this discrepancy in the number of AL dispensed and number of confirmed malaria cases will be bridged.

Percentage of Coverage with Outpatients Treated with ACTs and Number of LLINs Distributed at ANC

The prevention of malaria in pregnancy involves combination strategies that together are aimed at reducing maternal and perinatal morbidity and mortality occasioned by malaria. The strategies comprise the antenatal care (ANC) package that comprise at least two doses of intermittent preventive treatment for expectant (IPT2), Provision of Long Lasting Insecticide Nets(LLINs) and the provision of prompt diagnosis and treatment of fever. Graph 5shows the percentage of malaria cases among the outpatient who received appropriate anti-malarial treatment as recommended by the national policy.

Graph 5: Percentage of Coverage with Outpatients Treated with Artemisinin-Based Combination Therapy (All Malaria Cases) and of Antenatal Care Clients Receiving Insecticide Treated Nets or at Least Two Doses of Intermittent, 2012



Sources: HMIS/DDSR/LMIS

- % of ANC patients receiving IPT2 (2 or more ANC visits)
- ACT*
- % of ANC clients receiving IPT2 (new ANC visit)
- % of ANC patients receiving LLINs

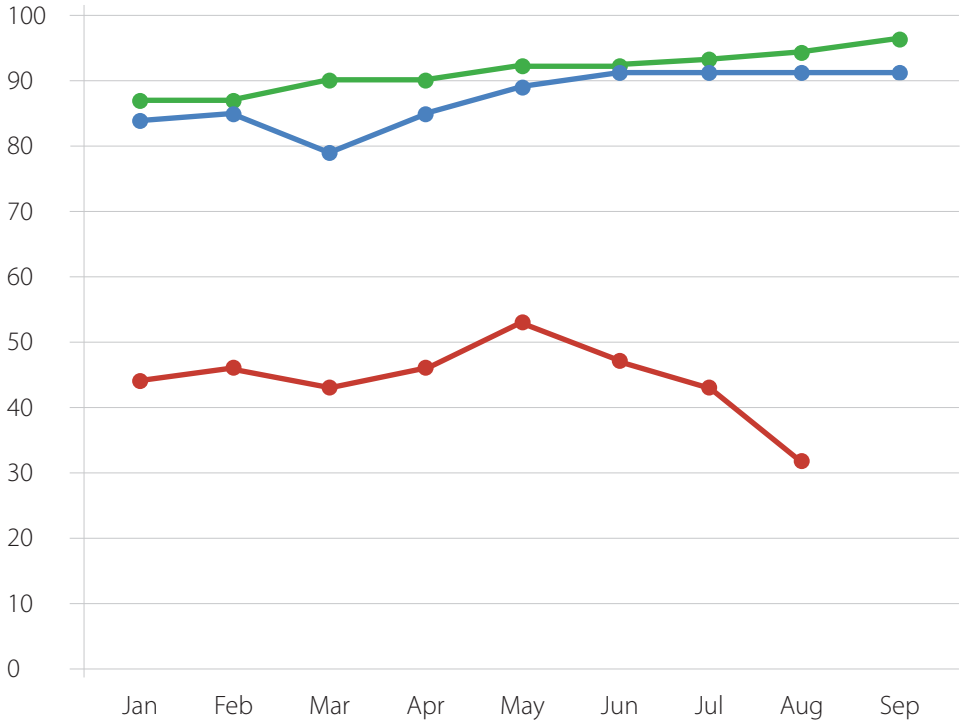
The uptake of IPT2 remains low (38%) among pregnant women (less than the recommended 80% coverage) in the selected malaria endemic and epidemic zones, with a sharp decline in the months of August (29%) and September (30%). There was a decline in the number of pregnant women receiving LLINs at first visit during the reporting period. The decline may have been occassioned by stock out of LLIN that was reported in the same period. However, no shortage of IPTp drugs during this period were experienced.

Reporting Rates by Data Sources

The Division of Malaria Control (DOMC) derives surveillance monitoring and evaluation (SM&E) data from various routine data reporting systems that includes the Division of Health Information Systems (DHIS), Integrated Disease Surveillance and Response (IDSR), the Logistics Management Information System, and Laboratory Information Management System (LIMS).

The reporting rates presented in graph 6 are for DHIS, IDSR and LMIS and is derived from the number of health facilities send in monthly reports against the number of health facilities expected to report each month. The IDSR data is an average of the weekly data that was reported during the reporting months.

Graph 6: Percentage Reporting Rates by Data Sources, 2012



Source: HMIS/DDSR/LMIS

The reporting rates for DHIS and IDSR have been steadily increasing and are slightly above 90% whereas that of LMIS has remained below 50% in 2012.

From the Counties

This section provides a general overview in terms of how the counties performed in data collection and reporting for selected malaria indicators as shown in Table 1 in the reporting quarter 1 of 2012/2013. Overall there was an improvement in the number of malaria cases tested and treated (after a confirmed parasite test) in the first quarter of 2012/2013 compared to the fourth quarter of 2011/2012.

Table 1: Malaria Indicator Summary

Province	County	Quarter 1—12/13				
		No. of Malaria cases tested	No. of out-patient confirmed malaria cases	No. of out-patients treated for malaria	No. of LLINs distributed to pregnant women	No of LLINs distributed to under 5 yrs
Central	Kiambu	55,375	4,883	5,592	6,466	3,040
	Kirinyaga	25,005	727	949	2,378	3,892
	Murang'a	13,302	468	446	2,629	3,798
	Nyandarua	11,532	1,028	3,310	45	
	Nyeri	5,176	38	263	2	
Coast	Kilifi	34,657	4,601	13,106	3,112	3,738
	Kwale	34,376	11,270	12,025	3,356	2,783
	Lamu	4,241	319	891	686	647
	Mombasa	55,541	11,980	24,400	2,469	4,188
	TaitaTaveta	26,622	3,493	3,746	1,927	1,115
	Tana River	6,183	1,100	2,912	655	558
Eastern	Embu	54,426	17,033	18,063	2,632	3,504
	Isiolo	7,054	1,671	2,599	999	29
	Kitui	27,806	10,640	17,894	5,990	7,301
	Machakos	35,122	5,119	6,805	4,558	6,443
	Makueni	25,147	2,677	3,721	3,599	5,208
	Marsabit	4,559	601	1,336	136	
	Meru	129,873	55,543	58,818	5,493	8,389
	Tharaka-Nithi	44,148	11,234	18,294	1,682	2,327
Nairobi	Nairobi	49,207	9,139	19,134	709	141
North Eastern	Garissa	19,932	2,334	2,518	448	95
	Mandera	4,955	611	1,141	111	260
	Wajir	5,731	1,590	4,893	184	140
Nyanza	Homa Bay	57,301	16,253	22,899	6,291	7,725
	Kisii	54,851	5,738	8,663	5,084	2,833
	Kisumu	71,505	25,704	32,043	3,834	4,464
	Migori	29,334	10,719	24,895	7,013	6,524
	Nyamira	16,410	433	1,784	3,695	4,465
	Siaya	92,562	42,392	48,169	5,524	6,315
Rift Valley	Baringo	12,488	3,064	3,933	2,132	2,597
	Bomet	9,325	669	4,813	7,477	9,257
	Elgeyo/Marakwet	6,734	1,899	2,132	2,384	3,437
	Kajiado	15,459	1,669	5,941	4,952	4,934
	Kericho	24,728	3,209	3,220	2,502	3,961
	Laikipia	7,887	1,312	1,642		
	Nakuru	40,537	10,314	24,719	104	79

Table 1: Malaria Indicator Summary *continued*

Province	County	Quarter 1—12/13				
		No. of Malaria cases tested	No. of out-patient confirmed malaria cases	No. of out-patients treated for malaria	No. of LLINs distributed to pregnant women	No of LLINs distributed to under 5 yrs
Rift Valley *continued*	Nandi	22,535	5,324	6,005	4,177	4,665
	Narok	15,199	2,041	3,045	4,564	4,492
	Samburu	1,346	272	1,817	324	308
	Trans Nzoia	28,352	8,332	11,764	4,203	2,787
	Turkana	65,865	33,716	20,680	1,334	272
	UasinGishu	34,808	8,215	13,287	4,115	5,068
	West Pokot	30,110	11,768	12,629	657	1,298
Western	Bungoma	83,926	37,125	37,525	6,250	8,104
	Busia	53,942	24,587	34,834	4,725	4,739
	Kakamega	104,764	42,822	39,784	13,458	12,629
	Vihiga	41,611	14,568	17,642	3,177	3,932
Total		**1,601,549**	**470,244**	**606,721**	**148,242**	**162,481**

Source(s): DDSR, HMIS

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