Zambia National Malaria Control Centre

Monitoring and Evaluation Newsletter

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Welcome to the Monitoring and Evaluation (M&E) Newsletter of the Zambia National Malaria Control Centre (NMCC). The newsletter is produced by malaria control partners to exchange information and news relevant to malaria control progress in the country.

We encourage you to contact us at me@nmcc.org.zm with ideas, success stories and features relevant for sharing with the national malaria M&E community.

Inside this issue:

Planning for success – End of decade benchmarking and strategic planning

Welcome to 2010. As one decade ends and another begins, the Ministry of Health and its partners are working toward updating the National Health Strategic Plan 2010 and the National Malaria Strategic Plan, set to expire in 2010. The past decade ushered in a new era of malaria control for the country with increased funding, revised antimalarial treatment policy, new and expanded malaria prevention interventions and documented success in reducing malaria burden. 2010 is an important year for benchmarking these successes and refocusing malaria control services to further tighten the grip on malaria burden. As these strategic planning opportunities arise, we look forward to your participation in setting the stage for the next phase of malaria prevention and treatment services throughout the country.

Insecticide-treated nets – Progress in malaria control

Insecticide-treated mosquito nets (ITNs) are a cornerstone of malaria control in Zambia. Since 2003, more than 7 million ITNs have been distributed throughout the country primarily through mass distribution, malaria in pregnancy and equity programs. From September–December 2009, more than 700,000 additional ITNs have been distributed throughout Zambia with contributions from the Ministry of Health, Global Fund, the President's Malaria Initiative (PMI), the World Bank, and RAPIDS, Society for Family Health (SFH), and MACEPA.

By truck, by boat, by car, by donkey, and by foot, ITNs are moving. The ITN bales pictured here are being carted to the villages surrounding Limulunga Rural Health Clinic, Mongu District, Western Province. Mongu District received 21,000 ITNs in October 2009 purchased by the Ministry of Health through Global Fund monies, with further transportation and distribution support arranged by the District Health Office, SFH, and MACEPA.

Developed by the NMCC, the 2010 ITN forecast helps quantify the district level ITN gaps and coordinate distribution amongst partners of forthcoming ITNs. If your organization is passing out ITNs in Zambia, please coordinate your efforts through NMCC so we can all maximize our investments and place ITNs where they are needed most.

Indoor residual spraying – 'Tis the season

In 2009, NMCC organized indoor residual spraying (IRS) for 36 districts, all of which have now been completed. With the Ministerial launch in September in Mazabuka, NMCC and District Health Offices, and partners retrained and re-equipped more than 1,500 spray operators to conduct house-to-house spraying in designated areas of these districts. One of the largest IRS operations on the continent, these activities provide critical malaria prevention services for more than 1.1 million targeted structures located in half of the districts in the country for the current malaria transmission season. (Figure 1: dark areas represent approximate spray areas within IRS districts based on digitized enumerations).

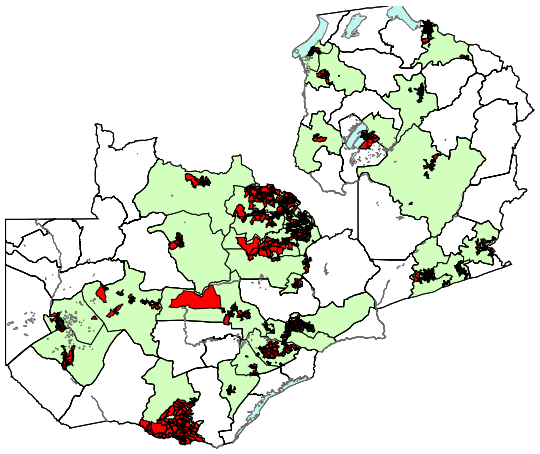


Figure 1: IRS districts and spray areas within these districts

Enumeration activities for IRS districts were completed in October 2009. See the NMCC website for summary reports on all 36 districts where enumeration reports were conducted, including planning information on targeted IRS areas and structures sprayed, ITN availability, and more. An annual IRS post-spray wrap-up meeting will take place in Kitwe from 1–2 February 2010 to review and summarize progress and areas covered.

District basket – Parasitologically-confirmed malaria cases recorded in HMIS throughout 2009

The revised Health Management Information System (HMIS) records parasitologically-confirmed malaria cases in addition to the clinical cases (mainly symptomatic fever) to reflect the National Malaria Control Program emphasis on and rollout of diagnostic tools including rapid diagnostic tests and microscopy. These tests differentiate malaria from other possible causes of fever that may result in misdiagnosis. As Figure 2 illustrates, urban health facilities (UHC) in Lusaka district, a known low malaria transmission area, report significantly less 'confirmed' malaria cases than clinical cases during period January—March (Q1) 2009, corresponding to the peak quarter of malaria transmission for most parts of the country. Among these confirmed cases, more than 75% were reported from Matero, Chilenje, Kanyama, Mtendere clinics. Half of these cases were reported from patients older than 5 years of age (inset).

In August 2009, NMCC began increased measures for quality assurance of microscopy among these facilities to validate reporting and improve feedback to facilities on laboratory practices. In Chilenje UHC, for example, of 246 positive slides reported from September to November, only 12 slides were confirmed as positive through the quality assurance program.

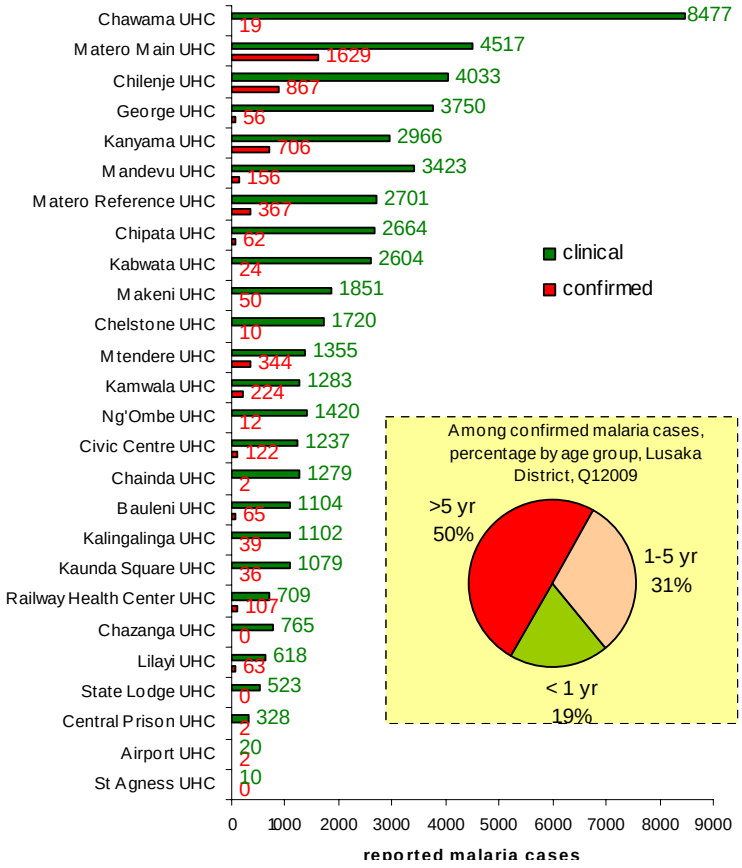
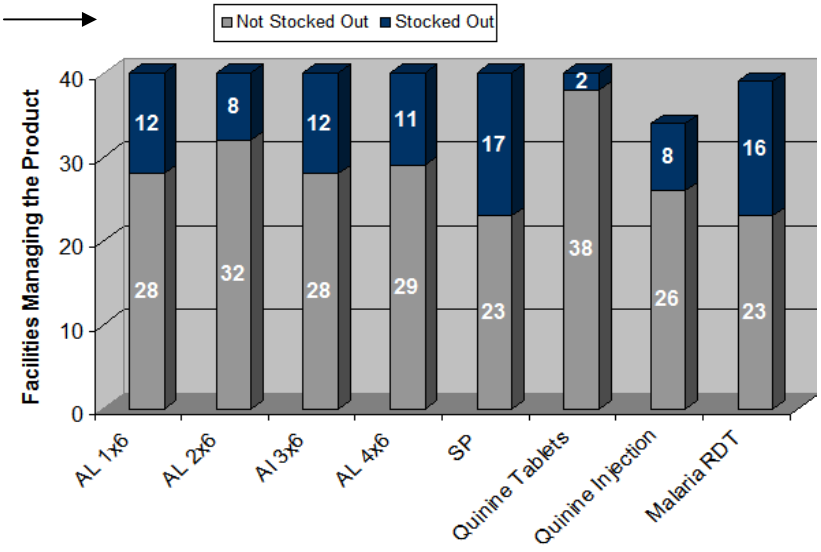


Figure 2: Reported malaria cases, Lusaka District, Q1 2009

Additional information, important to consider when interpreting this routinely reported data, draws attention to completeness by facility, availability of supplies and personnel to perform diagnostic tests, and total number of confirmatory diagnostic tests performed.

Partner's corner – JSI DELIVER Project automating antimalarial stockout monitoring

In order to provide quicker, actionable findings based on data from monitoring and supervision visits at health facilities involved in the new logistics system pilot, the USAID DELIVER PROJECT has incorporated the use of mobile phone data collection. EpiSurveyor is a software suite which enables the user to create surveys via an online interface, download the survey to a mobile phone, collect data at health facilities, and upload the data to a remote server, where it can be accessed online.



This new technology was piloted in 40 health facilities, located in Kafue, Kabompo, Kaoma, Choma, and Mwense, where testing of the Essential Drugs Logistics System (EDLS) has already occurred, to gather supply chain and malaria case management data in November 2009.

As shown in the graph, stock outs were most prevalent for SP, with 17 of the 40 facilities lacking this product. Stock out rates were also fairly common among the different artemether lumefantrine (AL) presentations. Further analysis showed that 4 of the 40 facilities were stocked out of all 4 AL presentations, indicating that these facilities would be unable to presribe AL by method of combining or cutting drug packaging.

Upcoming events – Zambia to participate in a microscopy certification training in Nairobi

Staff from NMCC will travel to Nairobi, Kenya to take part in a regional malaria microscopy certification training to help benchmark the skills of those involved in malaria microscopy quality assurance and quality control according to international WHO standards. This training is supported through USAID/PMI and is being conducted by the African Medical Research Foundation (AMREF) and WHO in January 2010. Good luck!

More upcoming events

1—2 Feb 2010	IRS Post-Spray Meeting, Kitwe
22—26 Feb 2010	Annual SARN Malaria Review Meeting, Johannesburg
First Quarter 2010	Health Facilities Survey – field work (pending funding)
April—May 2010	Malaria Indicator Survey (MIS) 2010 – field work
25 April 2010	World Malaria Day

For more information, visit the National Malaria Control Centre website, www.nmcc.org.zm, or contact the Monitoring and Evaluation Team at the National Malaria Control Centre at me@nmcc.org.zm.

HMIS Update – Malaria indicators: Speaking the same language

The revised Ministry of Health's Health Management Information System (HMIS) contains a number of important new indicators for malaria. These take advantage of available diagnostic tools to improve malaria case management by distinguishing suspected malaria cases, often fever and other generalized symptoms, from parasitologically confirmed malaria cases. These confirmed malaria cases are cases in which slide microscopy or a malaria rapid diagnostic test (RDT) positively confirmed the presence of malaria parasitemia.

Through routine reporting such as HMIS, it is important to note that progress in malaria control and reductions in malaria burden rely heavily on consistent trends in a) distinguishing suspected malaria cases from parasitologically confirmed malaria cases and b) the volume of malaria diagnostic testing performed.

HMIS Indicators	Definition
Malaria suspect case incidence rate	Numerator: clinical cases of malaria not confirmed by a positive RDT or blood smear (<5 years, ≥5 years) Denominator: <5 or ≥5 population, expressed per 10,000
Malaria confirmed case incidence rate	Numerator: cases of malaria (<5 years, ≥5 years) with a diagnosis confirmed by either positive microscopy or RDT Denominator: <5 or ≥5 population, expressed per 10,000
Percentage confirmed malaria cases	Numerator: cases of malaria with positive RDT or microscopy Denominator: Total number of clinical and confirmed cases of malaria (all persons suspected of having malaria who were treated presumptively [not tested or treated despite a negative test] or had a positive test)
Malaria suspect case fatality rate	Numerator: number of deaths attributed to malaria from a clinical malaria case (not confirmed by a positive RDT or blood smear) Denominator*: <5 or ≥5 population, expressed per 10,000 **Should likely be <5 or ≥5 admissions for malaria with a clinical diagnosis expressed per 1000 admissions*
Malaria confirmed case fatality rate	Numerator: number of discharge deaths attributed to inpatient malaria cases with a confirmed diagnosis using either microscopy or RDTs, (<5 years, ≥5 years) Denominator: <5 or ≥5 admissions for malaria with a confirmed diagnosis using either microscopy or RDTs expressed per 1000 admissions
Any health facility stock out of first line malaria drug	Daily tally of days with stock outs and without stock outs at each facility
Any health facility stock out of RDT	Daily tally of days with stock outs and without stock outs at each facility
Intermittent preventive treatment (IPT) for pregnant women through ANC visits (%)	Numerator: Number of antenatal clinic attendants given 1st, 2nd, and 3rd dose SP Denominator: Total number of first antenatal clinic attendances that month Expressed as percentage for each 1st, 2nd, and 3rd dose IPT received separately
Insecticide-treated mosquito net coverage of antenatal clients (%)	Numerator: Number of pregnant women provided with a long-lasting Insecticidal Net (LLIN) at antenatal visit Denominator: Total number of first antenatal clinic attendances that month
Malaria confirmed in pregnancy	Numerator: malaria in pregnant women with positive RDT or microscopy Denominator: Total number of 1st antenatal clinic attendances that month
Deaths due to confirmed malaria in pregnancy	Numerator: Deaths due to malaria in pregnant women with positive RDT or microscopy Denominator: Total number of 1st antenatal clinic attendances that month
Number of malaria cases treated with an anti-malarial	Numerator: Total number of anti-malarial treatments dispensed for treatment of malaria diagnosis. Denominator: Total number of clinical and confirmed cases of malaria (all persons suspected of having malaria who were treated presumptively [not tested or treated despite a negative test] or had a positive test)
Number of malaria microscopy slides and RDTs performed on inpatients	Total number of slides and RDTs taken for confirmation of malaria in inpatients

Notes, clarifications and additional definitions of important indicators for malaria:

Suspected/clinical malaria case: a patient with clinical symptoms of malaria including fever, regardless of diagnostic confirmation status or availability of malaria testing and treatment supplies at the facility.

Confirmed malaria case: a patient which has been diagnosed by a health care provider with clinical symptoms of malaria **AND** that have been tested with either a slide microscopy or a RDT **AND** who have a positive parasitologic diagnostic test result.

Malaria positivity rate: Parasitologically confirmed malaria cases divided by the number of **all** patients tested with either malaria microscopy or RDT. Although not included in the current list of HMIS indicators, malaria positivity rate provides important information on the true burden of malaria among tested suspected malaria cases and is important for understanding impact of malaria control efforts. Facilities and districts should be encouraged to collect and analyze this information to understand their malaria burden.

Malaria testing rate: The diagnostic malaria tests performed divided by the number of suspected malaria cases. This provides an indication of the level of availability of malaria parasitologic testing that is able to meet the demand to support clinical malaria diagnoses.

Age group distinction: HMIS data elements record <1 year (0-11 months), 1-<5 years (12-47 months) and ≥ 5 years. Malaria indicators group < 1 year and 1-<5 years to create the <5 years age group.