



Uganda Malaria Quarterly Bulletin



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Uganda Ministry of Health | National Malaria Control Program | P.O. Box 7272 | Kampala | Uganda

Editorial

This is the 12th issue of the Uganda Malaria Quarterly Bulletin that focuses on the fourth quarter of 2015. The aim of this bulletin is to inform district, national, and global stakeholders on progress achieved and challenges encountered in malaria control in Uganda. Most importantly, it is to encourage use of this information at all levels in order to foster improvement of our efforts and to highlight achievements and create awareness for increased resource mobilization & allocation in order to maintain the gains we have achieved.

In this issue, it is with great pleasure that we introduce and welcome the new Program Manager, National Malaria Control Program, Dr. Jimmy Opigo. Dr. Opigo is a health systems expert who brings to NMCP 15yrs of experience working as a leader and driving change in the Ugandan health sector. He is a Medical Doctor with a Masters in Public Health. He is also a Fellow of Health Systems Management at the Institute of Tropical Medicine Antwerp and Makerere University School of Public Health. He was previously the District Health Officer in Moyo district, where he registered many successes that have strengthened the health system. He has expertise in community health, health planning and financing, organizational development, programme management, monitoring and evaluation, medicines and human resource management.

The NMCP staff and implementing partners look forward to a fruitful working relationship with the Program Manager, and to achieving the goals of the Uganda Malaria Reduction and Strategic plan.

It will be great to hear from you regarding this publication. Thank you and we hope this will be an informative reading for you.

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2015 Q4 Report highlights

- There has been a sharp increase in the malaria burden, both the out-patient and in-patient, from October to December 2015.
- The malaria epidemic which was confirmed in June 2015 is still well above the epidemic alert threshold in 10 Northern districts.
- The number of ACTs consumed country-wide averaged at an alarming four times the number of malaria cases diagnosed at health facilities.

Editorial Team

National Malaria Control Program

Jimmy Opigo
 Allen E Okullo
 Bosco Agaba
 Henry Katamba
 Denis Rubahika
 Mathias Mulyazawo
 Vincent Katamba
 Humphrey Wanzira

Resource Centre

Eddie Mukoyo
 Carol Kyozira
 John Kissa

World Health Organisation

Charles Katureebe

US President's Malaria Initiative

Kassa Belay
 BK Kapella

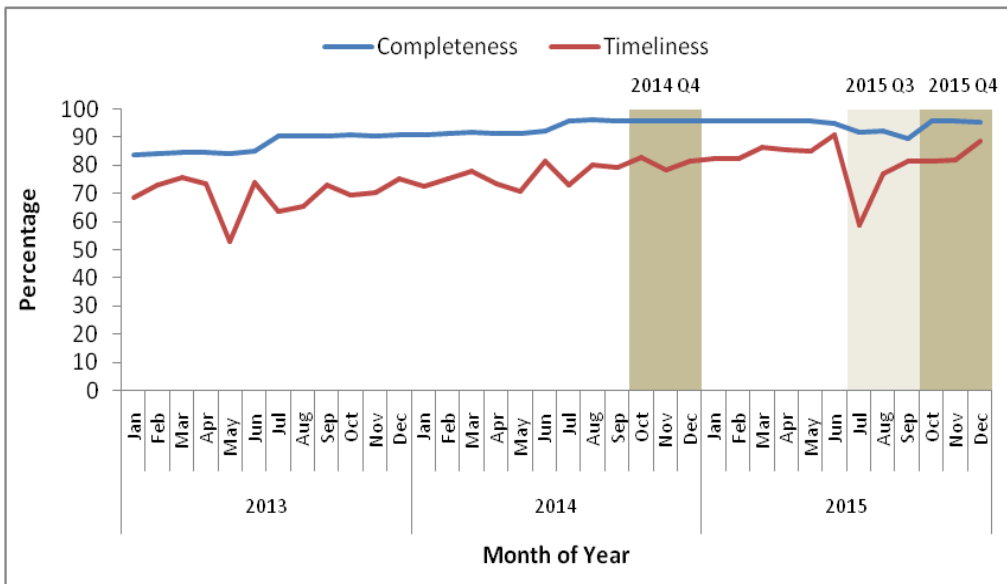
Uganda Malaria Surveillance Project

Ruth Kigozi

African Leaders Malaria Alliance

Anne Gasasira

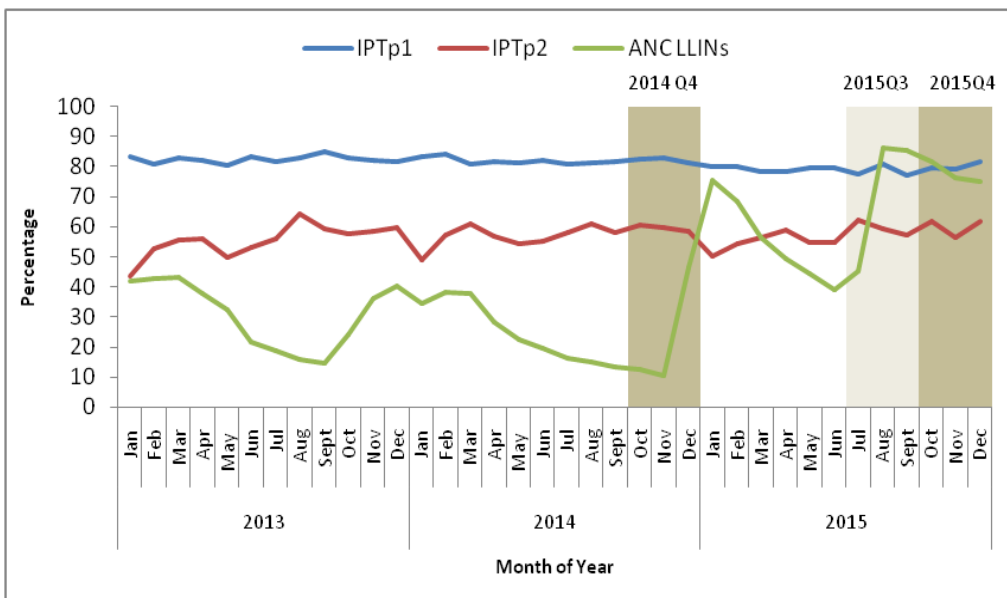
HMIS reporting rates



- This quarter, an average of 95% of the facilities that report on the HMIS, reported. This was an improvement from the previous quarter that had an average of 91%.
- Facilities that submit their reports on time improved from an average of 72% in the third quarter to 84% in the fourth.

Malaria Intervention updates

- Key malaria interventions targeting pregnant mothers are: the provision of intermittent preventive treatment in pregnancy (IPTp) with Fansidar and LLIN distribution through routine ante natal (ANC).
- This quarter, 80% of pregnant mothers attending their first ANC visit received the first dose of IPTp. This is a slight increase from 78% the previous quarter.

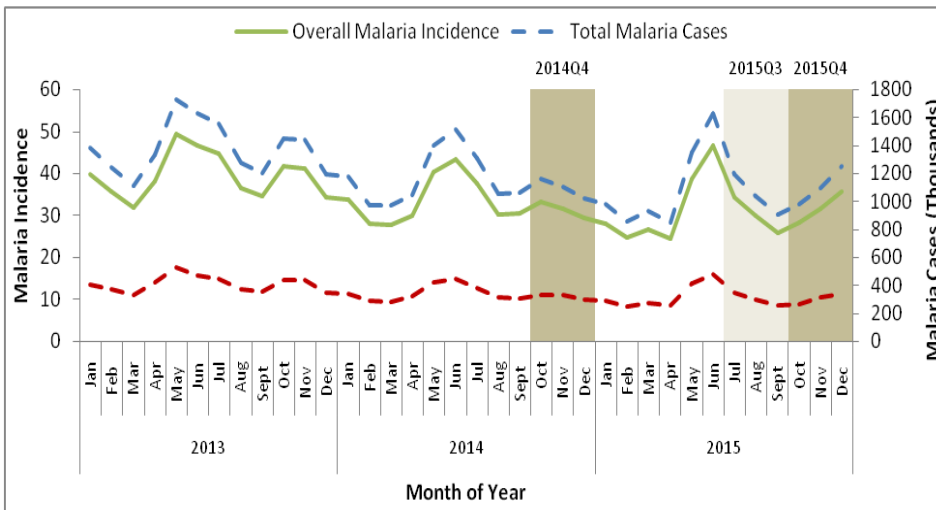


- The proportion of pregnant mothers receiving IPTp2 averaged at 60%, about the same as the previous quarter. This was 20% lower than IPTp1 this quarter.
- The proportion of pregnant mothers receiving LLINs decreased from a peak of 86% in August, the previous quarter to 75% in December 2015 and averaging at 78% this quarter.

- In the scale up of Integrated Community Case Management (iCCM) to 15 districts, fewer quantities of iCCM commodities (about 50% drugs; below 30% other commodities) were delivered to iCCM districts based on the distribution plan this quarter. Malaria RDT kits were not delivered. The main reason attributed to this was communication from the Ministry to halt delivery of iCCM commodities to Global Fund districts pending trainings and lack of availability of registers for Village Health Teams. Efforts are being made to fasten delivery and start up VHT implementation in early 2016.

Malaria Burden

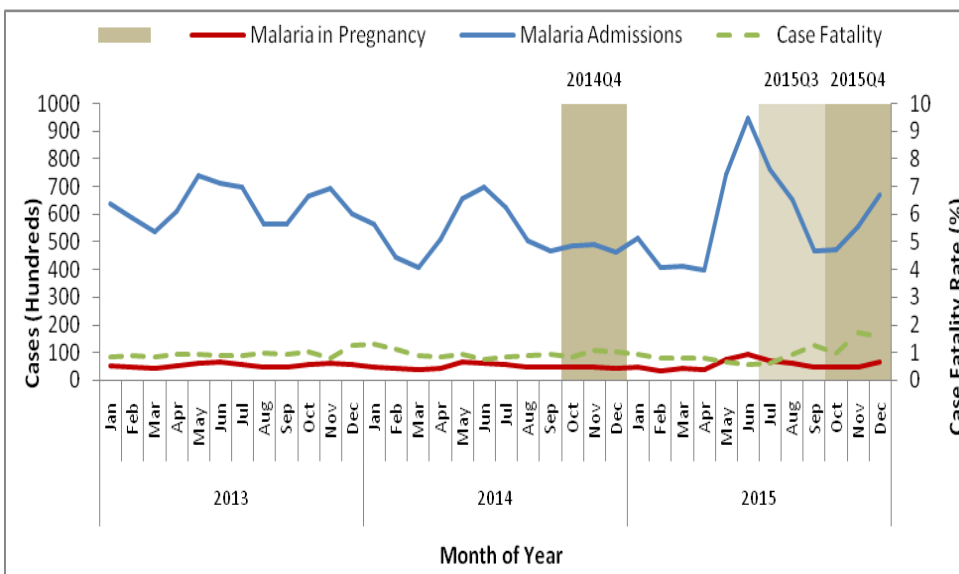
Out-patients



- This quarter, there was 27% increase in the total number of monthly malaria cases diagnosed (lab confirmed and clinical) from 982,161 in October to 1,248,869 in December 2015. Similarly, the incidence increased from 28 cases per 1000 in October to 36 cases per 1000 population in December 2015.
- The under 5 malaria cases had a similar trend with a 26% increase from 268,607 in October to 339,082 in December 2015.

- The increase in malaria cases this quarter is probably seasonal following the second rainy season. The high transmission season seems to have been extended this quarter compared to previous years. This may be due to an El-Nino effect. This is the main reason surveillance should be prioritized.

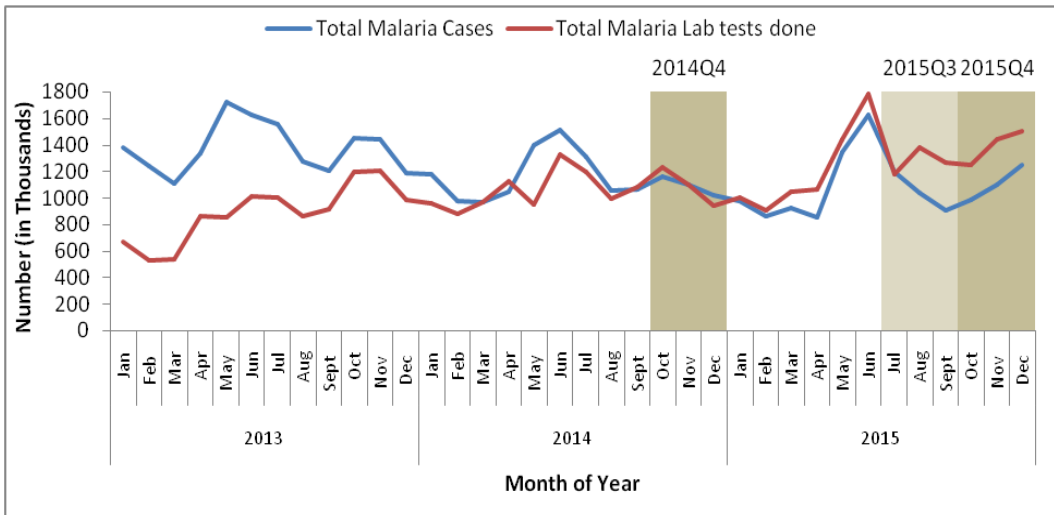
In-patients



- This quarter there was a 41% increase in the number of admissions due to malaria. This was from 47353 in October to 66908 in December.
- The number of pregnant women admitted to hospital had a 37% increase from 4882 in October to 6687 in December 2015.
- The case fatality rate for all admitted malaria cases increased from 1% in October to 1.6% in December this quarter. This quarter has had the highest case fatality rate at 1.7% in November which prompts the need to closely monitor this trend.

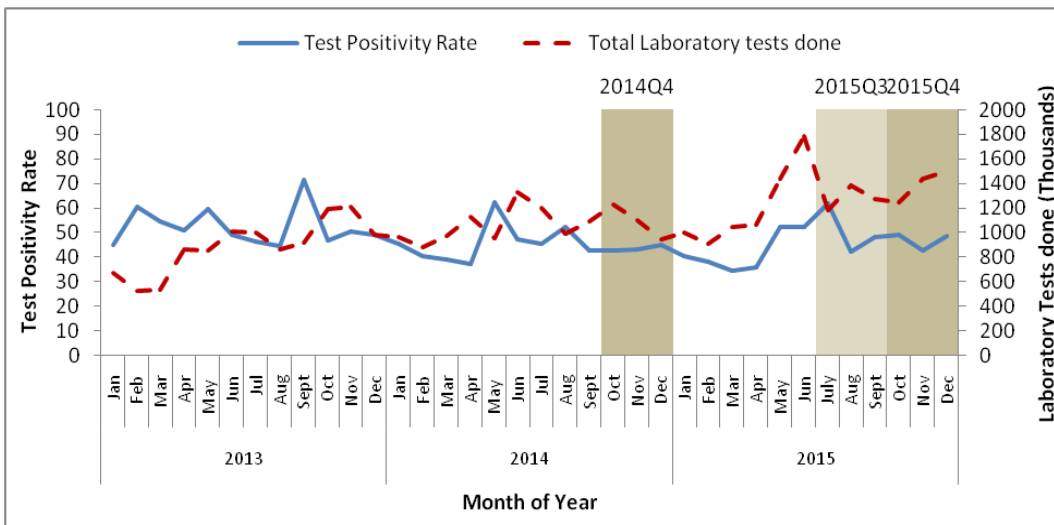
Malaria diagnosis

Comparison of reported Malaria cases with malaria laboratory tests done



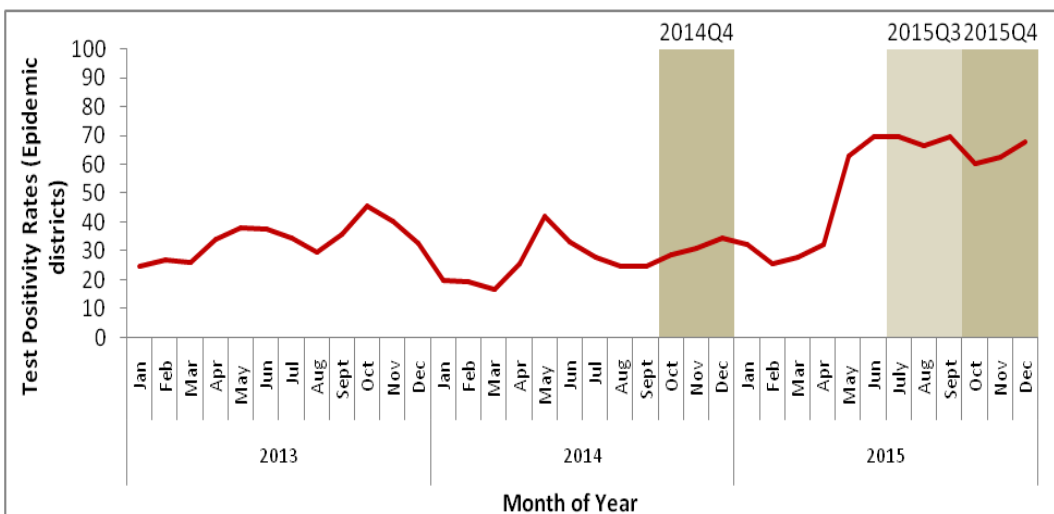
- From October to December 2015, there was an increase in the number of reported malaria cases with a similar increase in the total malaria laboratory tests done. The total tests exceeded the reported malaria cases since some of the tests turn out negative.

Test positivity rate



- The Test positivity rate averaged at 47% this quarter with a slight drop from 49% in October to 43% in November, followed by a rise to 49% in December 2015. Surveillance should be intensified to closely monitor the TPR countrywide and put in place control measures.

Test positivity rate in the 10 Northern Epidemic districts

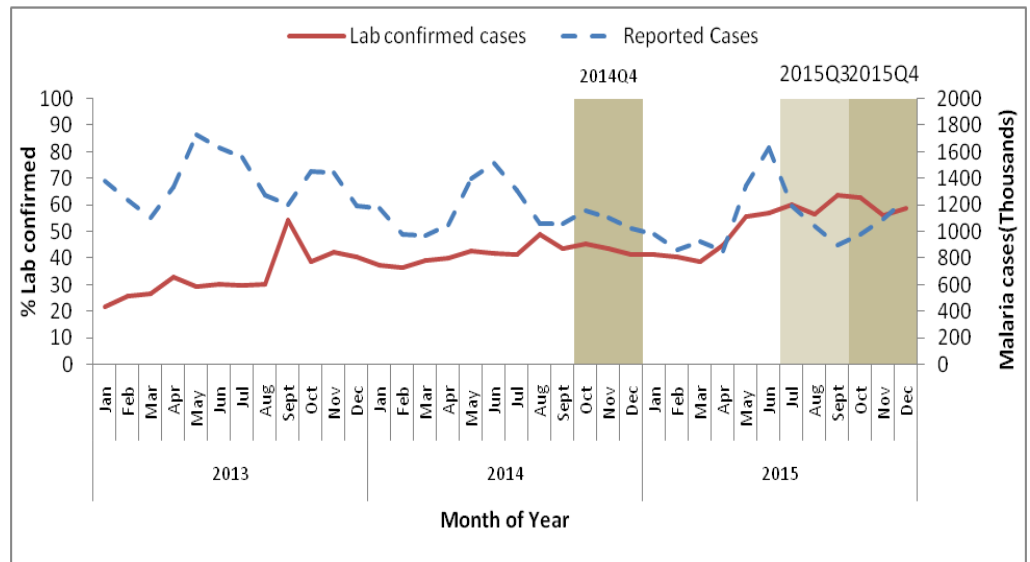


- The malaria test positivity rate in the ten epidemic districts of northern Uganda this quarter increased from 60% in October to 68% in December, averaging at 64%. This doubles the TPR in same quarter of 2014 which was 31%. It is also much higher than the country average of 49%.

Malaria diagnosis

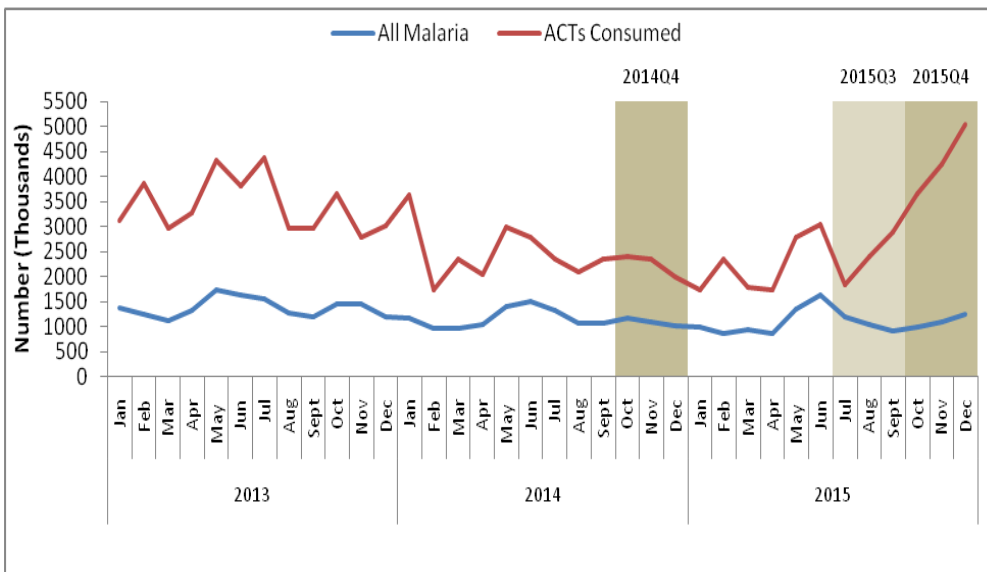
Proportion of laboratory confirmed cases among all malaria diagnosed cases

- The proportion of reported cases that are laboratory confirmed decreased from 63% in October to 59% in December 2015 as the number of reported cases increased. On average, the proportion of reported cases that were confirmed this quarter was 59% compared to 60% in the previous quarter.



Treatment practices

ACTs consumed

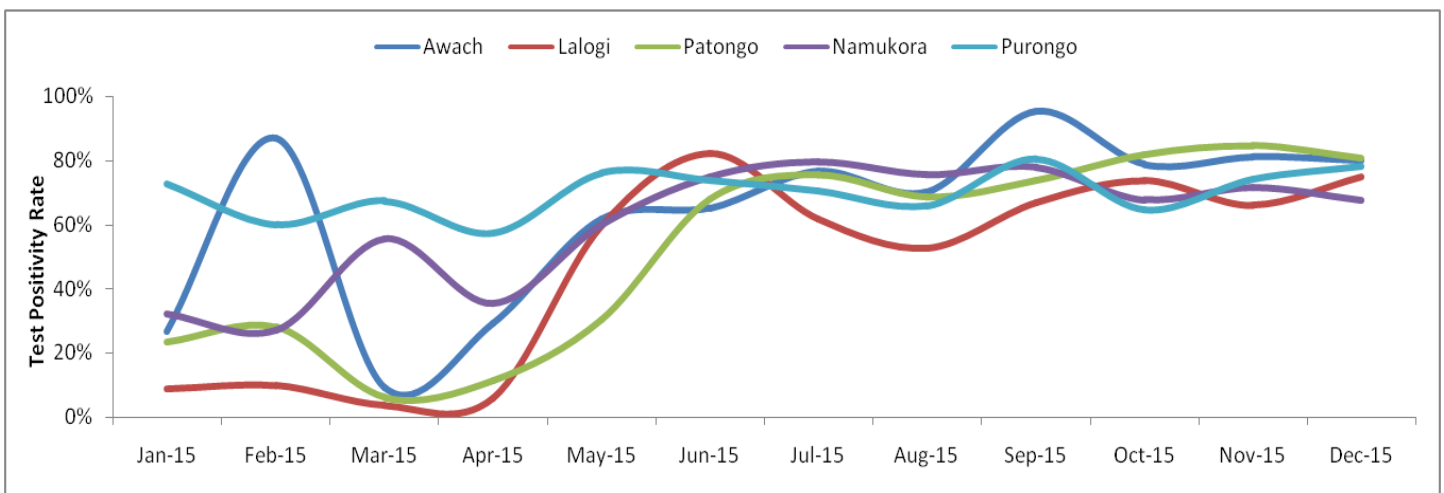
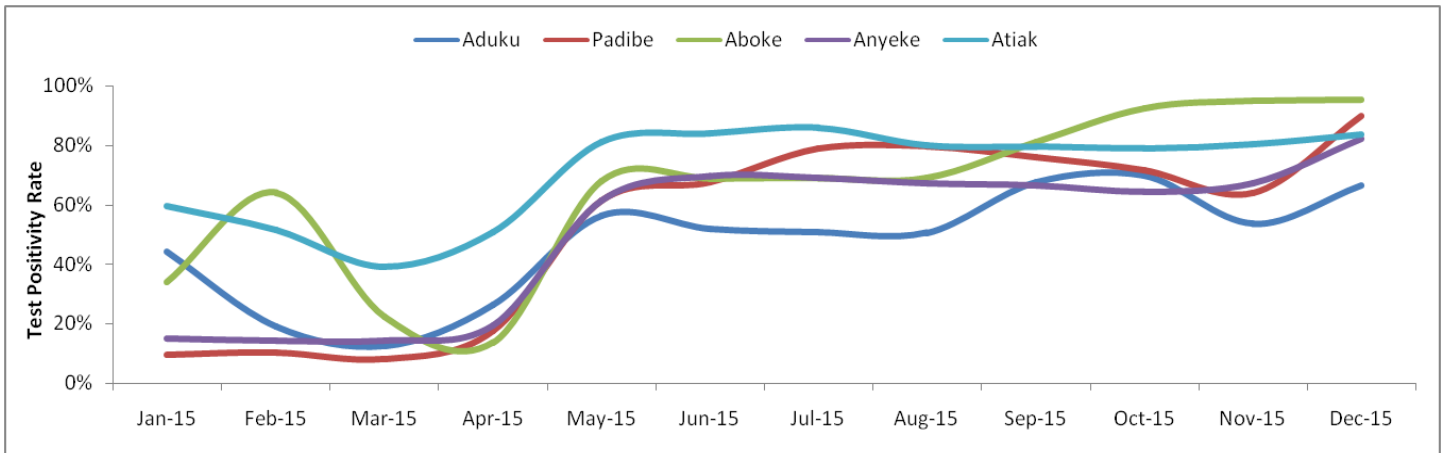


- The number of ACT doses consumed increased by 37% from 3,644,864 in October to the highest recorded consumption in the past three years at 5,050,444 in December 2015.
- The number of ACT doses consumed this quarter was four times the number of malaria cases! With a total of 12,944,956 ACT doses reported to have been consumed and 3,328,863 reported malaria cases. It is crucial that an inquiry is done to find out why this is the case.

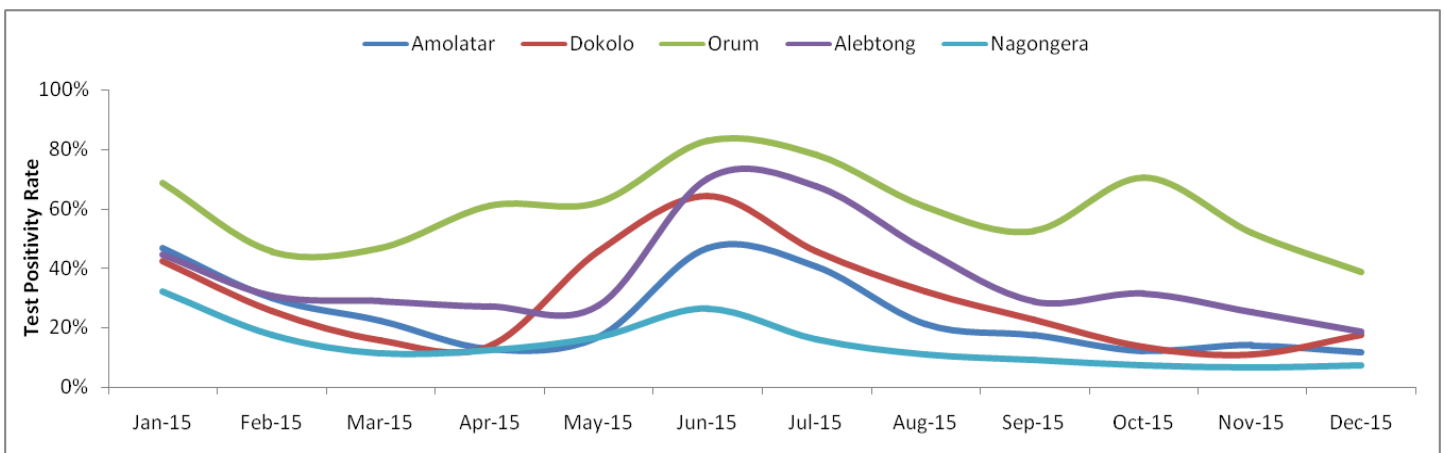
Malaria Reference Centers

Test Positivity Rate observed at various Malaria Reference Centers

Reference Centers where IRS stopped in 2014

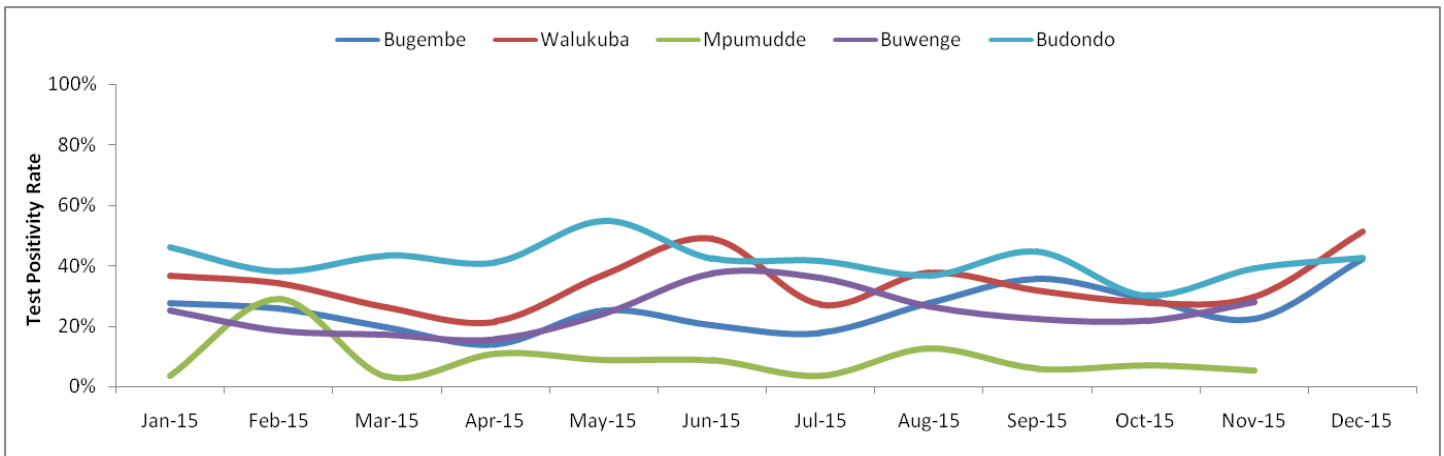
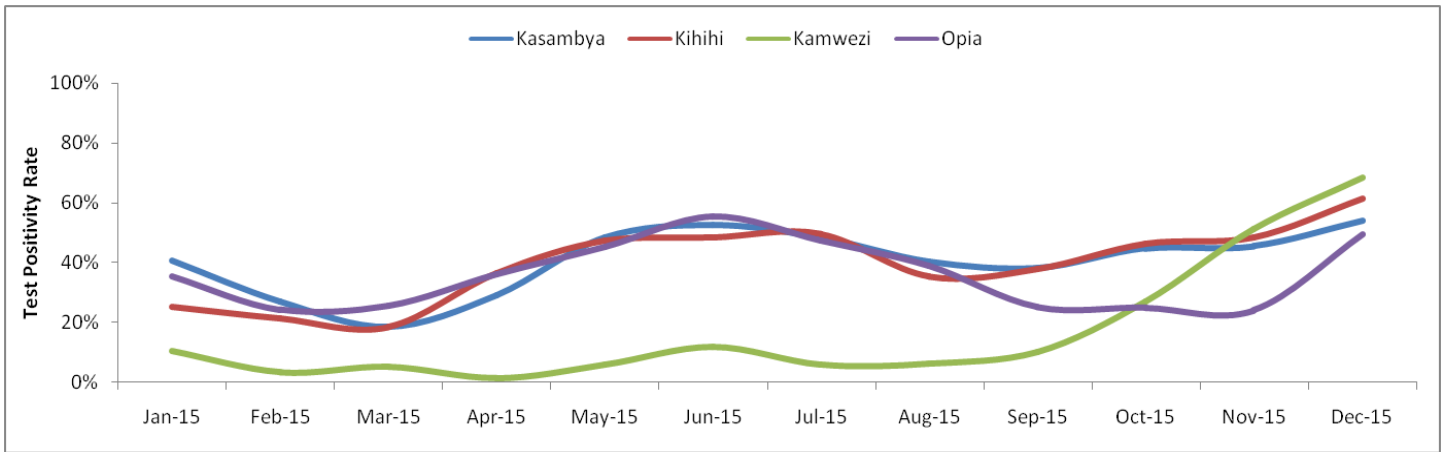


Reference Centers where IRS is Ongoing



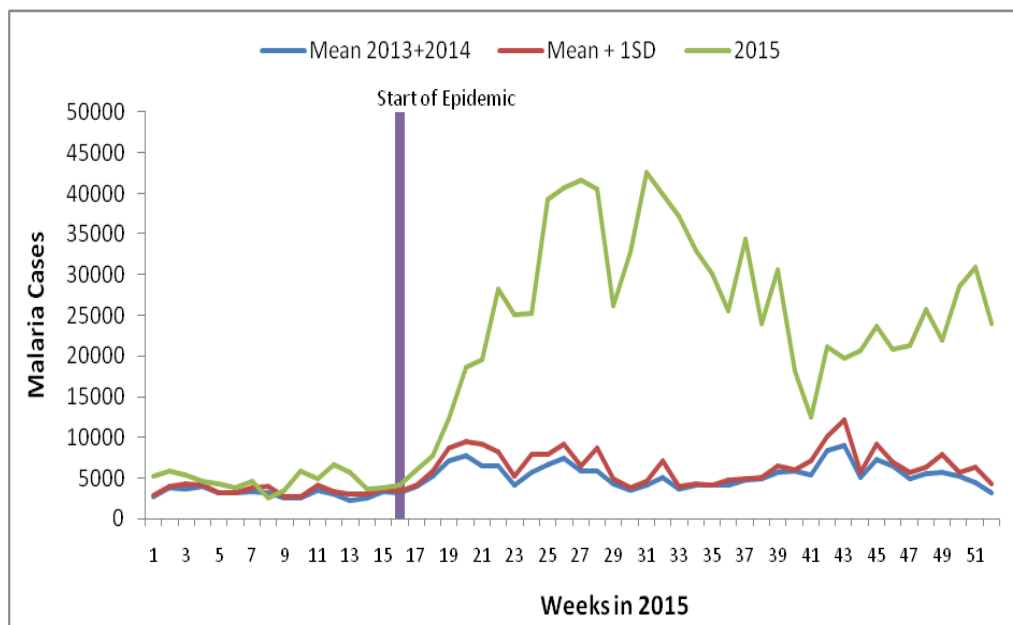
Malaria Reference Centers

Reference Centers that never received Indoor residual spraying (IRS)



Special Topic: A reflection on the persistent Malaria Epidemic in Northern Uganda

- The malaria epidemic in the 10 former IRS districts of Northern Uganda declared in June 2015, continues to persist. This is despite the interventions that have been put in place through the support of various partners under the guidance of the National Malaria Control Program, Ministry of Health.
- The graph below shows the trend in all 10 districts i.e. Gulu, Nwoya, Amuru, Pader, Kitgum, Lamwo, Amuru, Apac, Oyam and Kole, from the start of the epidemic to the end of the fourth quarter (2015).



At the start of the fourth quarter of 2015, there was a drop in malaria cases from 18,217 in week 40 (last week of Sept) to 12,425 in week 41. This was the lowest number of cases reported in a week this quarter. This was followed by a sharp increase to 21,216 cases in week 42.

Malaria cases have continued to increase steadily up to week 51, with cases declining by 6936 in week 52. Despite this, the cases are well above the malaria normal channel as depicted in the graph.

This calls for continued intensified surveillance and vigilance in reporting from all the districts to inform the Ministry of Health for action.

HMIS could only provide two complete years of weekly data for 2013 and 2014

Suggested steps to curb the epidemic:

- The malaria epidemic which has lasted for more than six months is quite shocking and ‘raises eyebrows’ as to why it has persisted despite the interventions. Interventions include: increase in provision of anti-malarials, technical support to management of malaria, intensified surveillance and Behavioural Change Communication, provision of LLINs and Mass Fever Treatment provided to 72 sub-counties.
- This calls for a deep reflection and quick action by key stakeholders which include the NMCP, Districts, implementing partners on a number of areas:
 1. An assessment to determine whether the trend in malaria cases in these districts is significant of an epidemic or a resurgence which would direct the key actions to take based on the findings.
 2. Close monitoring and surveillance of all districts and in particular those that had a increase in malaria incidence this quarter from the same quarter in 2014 as shown in the malaria burden tables on page 9-11. This should be geared at preventing malaria outbreaks.
 3. In light of the support that Global Fund has provided for IRS in the current epidemic districts, it is crucial that the IRS activity is expedited and an efficient and effective exit strategy is implemented pre- and post-IRS.
 4. Continued support from all stakeholders to control the epidemic.

District Malaria burden

2011 DHS regions	District	Malaria Incidence			% difference	
		2014Q4	2015Q3	2015Q4	2015 Q4 - 2015 Q3	2015 Q4 - 2014 Q4
Central 1	Bukomansimbi	40	64	55	-14	37
Central 1	Butambala	117	147	131	-11	12
Central 1	Gomba	73	60	62	4	-15
Central 1	Kalangala	136	130	154	18	13
Central 1	Kalungu	52	95	55	-43	4
Central 1	Lwengo	46	51	62	23	34
Central 1	Lyantonde	313	186	186	0	-41
Central 1	Masaka	50	73	74	2	49
Central 1	Mpigi	58	65	54	-17	-7
Central 1	Rakai	98	128	130	2	33
Central 1	Sembabule	91	79	89	13	-2
Central 1	Wakiso	38	35	33	-4	-13
Central 2	Buikwe	65	69	75	9	15
Central 2	Buvuma	45	65	46	-29	3
Central 2	Kayunga	87	68	85	24	-3
Central 2	Kiboga	68	59	70	19	3
Central 2	Kyankwanzi	54	59	53	-9	-1
Central 2	Luwero	91	64	65	1	-29
Central 2	Mityana	93	102	100	-2	8
Central 2	Mubende	89	48	62	29	-30
Central 2	Mukono	53	52	54	5	2
Central 2	Nakaseke	90	80	95	18	5
Central 2	Nakasangola	163	154	133	-14	-19
East Central	Bugiri	147	100	70	-30	-52
East Central	Busia	151	125	110	-12	-27
East central	Buyende	61	41	57	39	-7
East Central	Iganga	131	129	116	-10	-11
East Central	Jinja	131	133	178	33	36
East Central	Kaliro	122	56	91	63	-26
East Central	Kamuli	151	108	140	29	-7
East Central	Luuka	156	116	109	-6	-30
East Central	Mayuge	113	78	84	8	-26
East Central	Namayingo	185	145	168	16	-9
East Central	Namutumba	170	121	78	-36	-54
Eastern	Amuria	175	209	197	-6	12
Eastern	Budaka	150	76	96	27	-36
Eastern	Bududa	46	61	47	-23	2
Eastern	Bukedea	65	75	83	11	28
Eastern	Bukwo	90	73	85	16	-6
Eastern	Bulambuli	85	77	90	17	5
Eastern	Butaleja	186	115	118	2	-36
Eastern	Kaberamaido	163	121	98	-20	-40
Eastern	Kapchorwa	137	100	79	-21	-43
Eastern	Katakwi	244	277	232	-16	-5

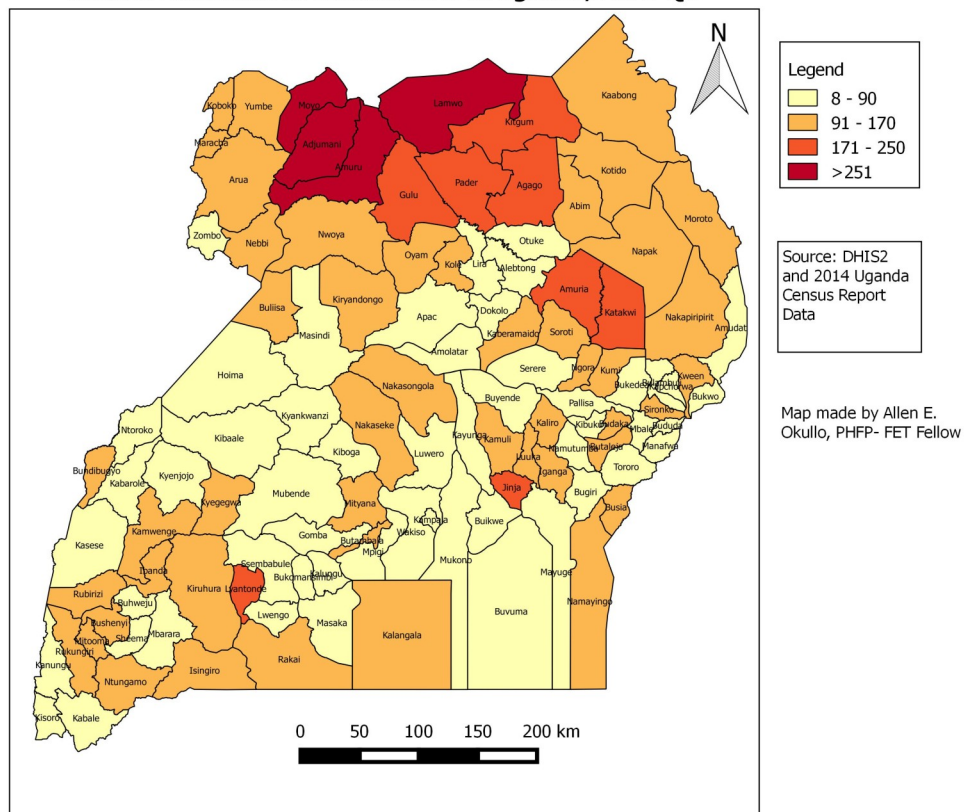
2011 DHS regions	District	Malaria Incidence			% difference	
		2014Q4	2015Q3	2015Q4	2015 Q4 - 2015 Q3	2015 Q4 - 2014 Q4
Eastern	Kibuku	100	54	42	-23	-58
Eastern	Kumi	121	120	98	-18	-19
Eastern	Kween	125	104	113	9	-10
Eastern	Manafwa	53	71	54	-24	1
Eastern	Mbale	59	69	82	19	39
Eastern	Ngora	126	126	131	4	3
Eastern	Pallisa	143	71	87	22	-39
Eastern	Serere	124	83	78	-6	-37
Eastern	Sironko	122	100	94	-6	-23
Eastern	Soroti	151	158	169	7	12
Eastern	Tororo	170	75	57	-24	-67
Kampala	Kampala	65	53	45	-14	-31
Karamoja	Abim	184	188	151	-19	-18
Karamoja	Amudat	95	51	39	-24	-59
Karamoja	Kaabong	232	227	165	-27	-29
Karamoja	Kotido	159	152	106	-31	-34
Karamoja	Moroto	205	170	122	-28	-40
Karamoja	Nakapiripirit	132	127	130	2	-1
Karamoja	Napak	127	128	104	-19	-18
North	Agago	69	273	194	-29	180
North	Alebtong	65	48	35	-28	-46
North	Amolatar	131	61	58	-4	-56
North	Amuru	64	263	252	-4	291
North	Apac	67	126	81	-36	20
North	Dokolo	138	95	76	-20	-45
North	Gulu	79	287	229	-20	189
North	Kitgum	57	319	247	-23	332
North	Kole	19	130	117	-11	516
North	Lamwo	41	515	330	-36	694
North	Lira	89	63	73	16	-17
North	Nwoya	46	167	150	-10	223
North	Otuke	120	100	70	-31	-42
North	Oyam	26	141	128	-9	393
North	Pader	37	270	234	-13	536
South West	Buhweju	34	26	30	16	-13
South West	Bushenyi	84	76	97	28	15
South West	Ibanda	159	122	162	32	1
South West	Isingiro	81	104	131	26	61
South West	Kabale	10	10	17	76	73
South West	Kanungu	67	50	75	48	11
South West	Kiruhura	132	89	92	4	-30
South West	Kisoro	16	12	17	46	10
South West	Mbarara	58	46	44	-4	-24
South West	Mitooma	113	102	134	31	18

2011 DHS regions	District	Malaria Incidence			% difference	
		2014Q4	2015Q3	2015Q4	2015 Q4 - 2015 Q3	2015 Q4 - 2014 Q4
South West	Ntungamo	97	82	103	26	6
South West	Rubirizi	84	104	110	6	31
South West	Rukungiri	95	77	93	21	-2
South West	Sheema	94	64	78	22	-17
West Nile	Adjumani	280	288	277	-4	-1
West Nile	Arua	105	105	124	18	19
West Nile	Koboko	113	127	127	0	12
West Nile	Maracha	134	130	158	21	18
West Nile	Moyo	350	374	387	4	11
West Nile	Nebbi	150	133	152	15	2
West Nile	Yumbe	95	92	90	-2	-5
West Nile	Zombo	42	65	61	-6	43
Westen	Bundibugyo	132	175	146	-17	11
Western	Buliisa	109	100	119	18	9
Western	Hoima	64	87	83	-5	28
Western	Kabarole	68	89	79	-12	16
Western	Kamwenge	100	102	115	12	15
Western	Kasese	82	75	88	17	7
Western	Kibaale	44	37	49	34	10
Western	Kiryandongo	106	103	114	10	8
Western	Kyegegwa	97	62	102	63	5
Western	Kyenjojo	45	70	66	-5	46
Western	Masindi	85	83	81	-2	-5
Western	Ntoroko	90	81	65	-21	-28

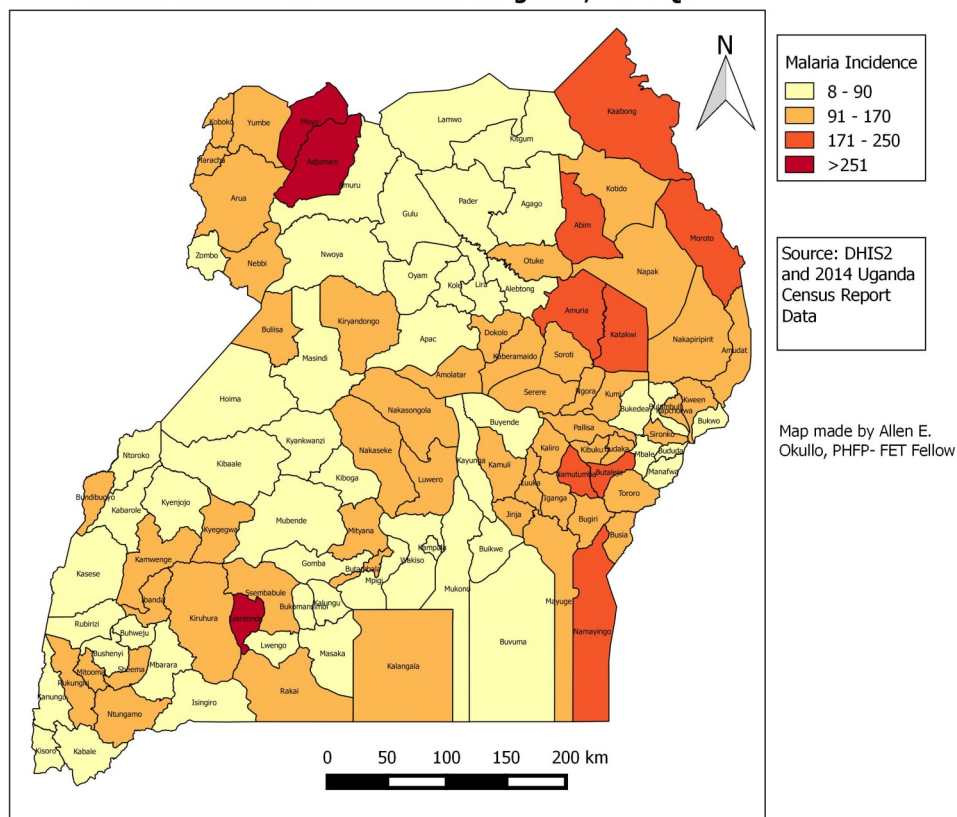
Maps of Malaria burden by district

Below are maps showing the changes in the incidence of malaria per 1000 population in quarter 4, 2015 compared to quarter 3, 2015 and 4, 2014.

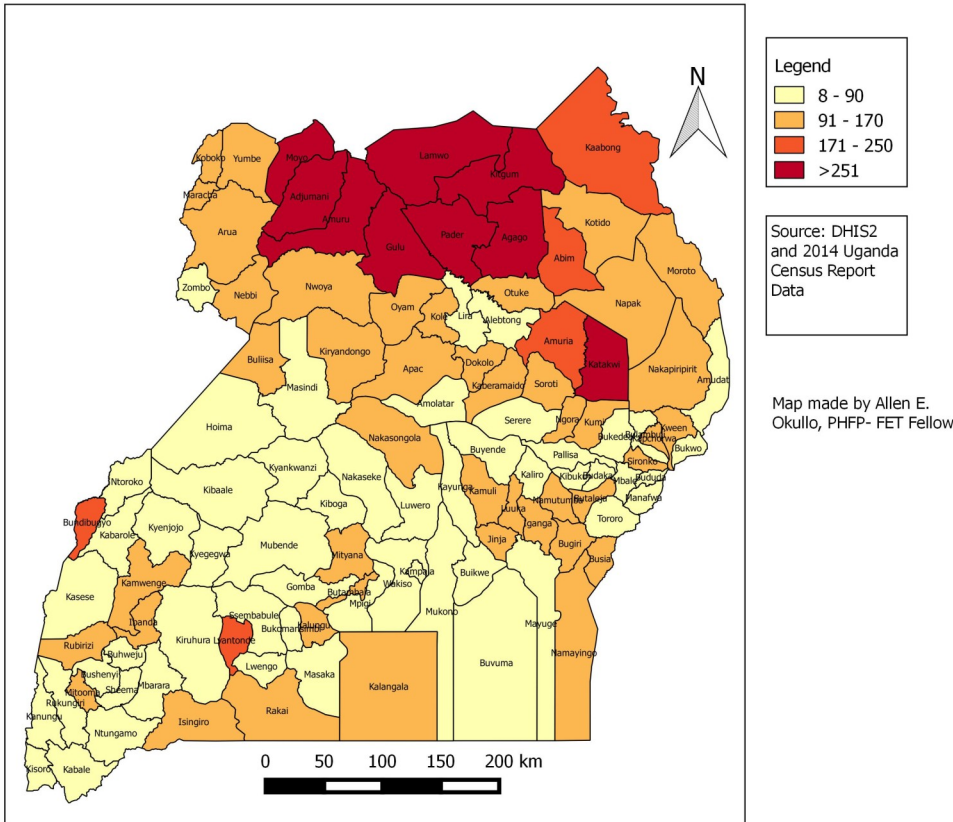
Malaria Incidence at District level in Uganda, 2015 Q4



Malaria Incidence at District level in Uganda, 2014 Q4

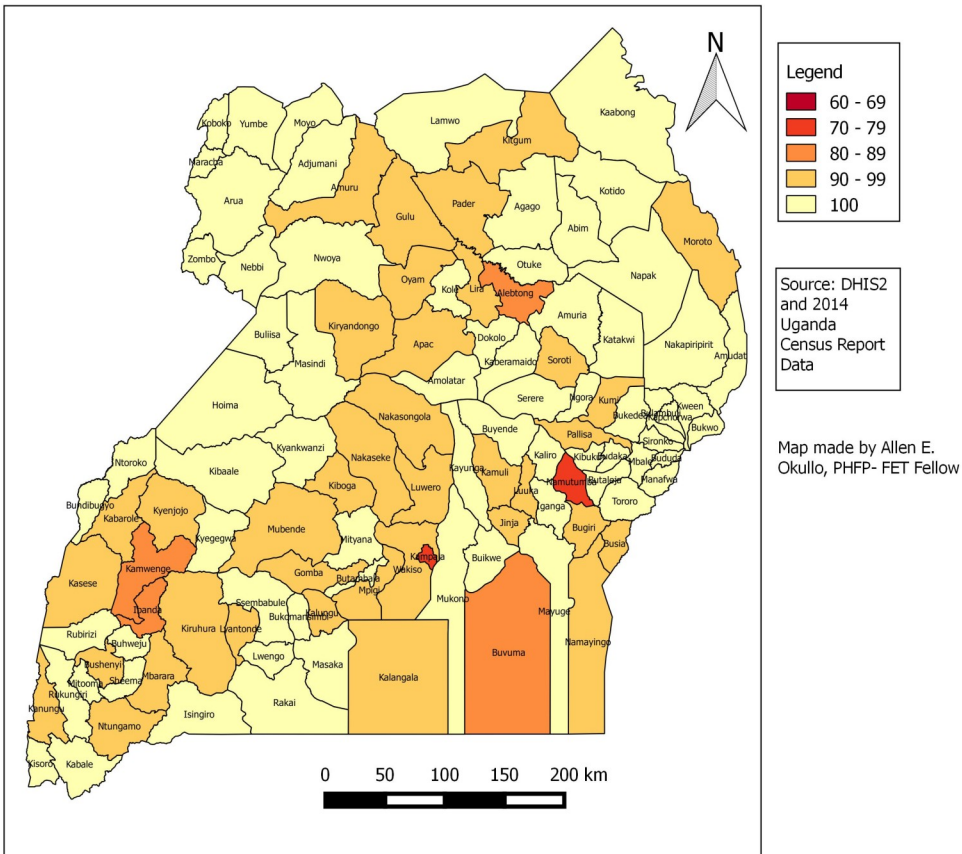


Malaria Incidence at District level in Uganda, 2015 Q3



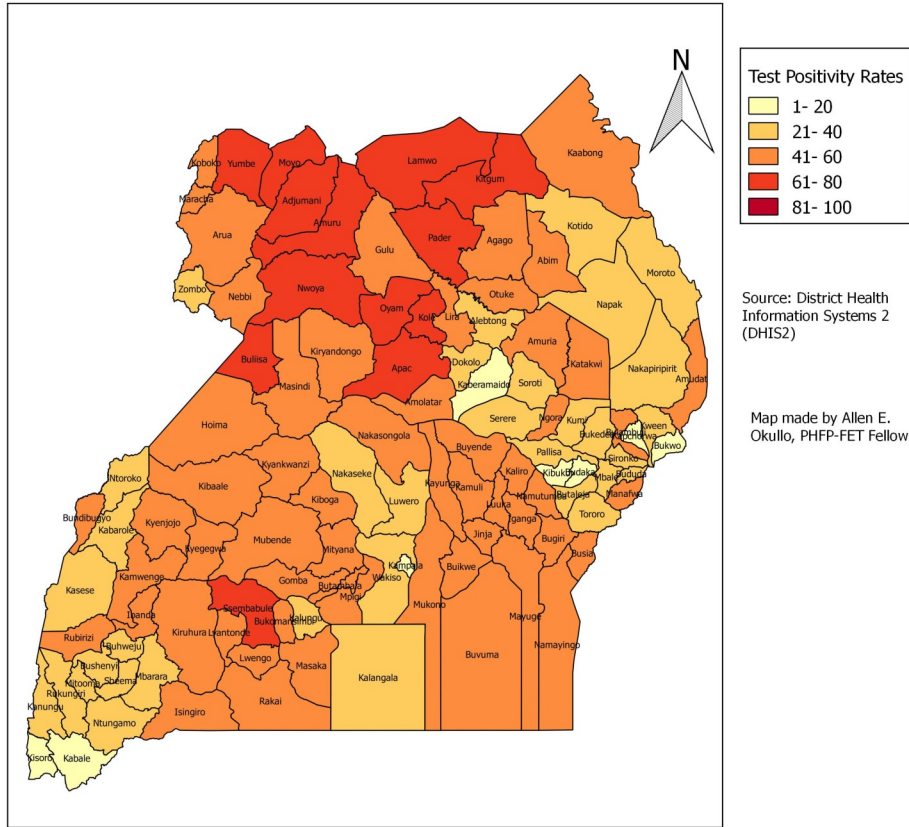
Below is a map showing the reporting rates at district level in Uganda, 2015 Quarter4

Reporting Rates for monthly reports at district level in Uganda, 2015 Q4

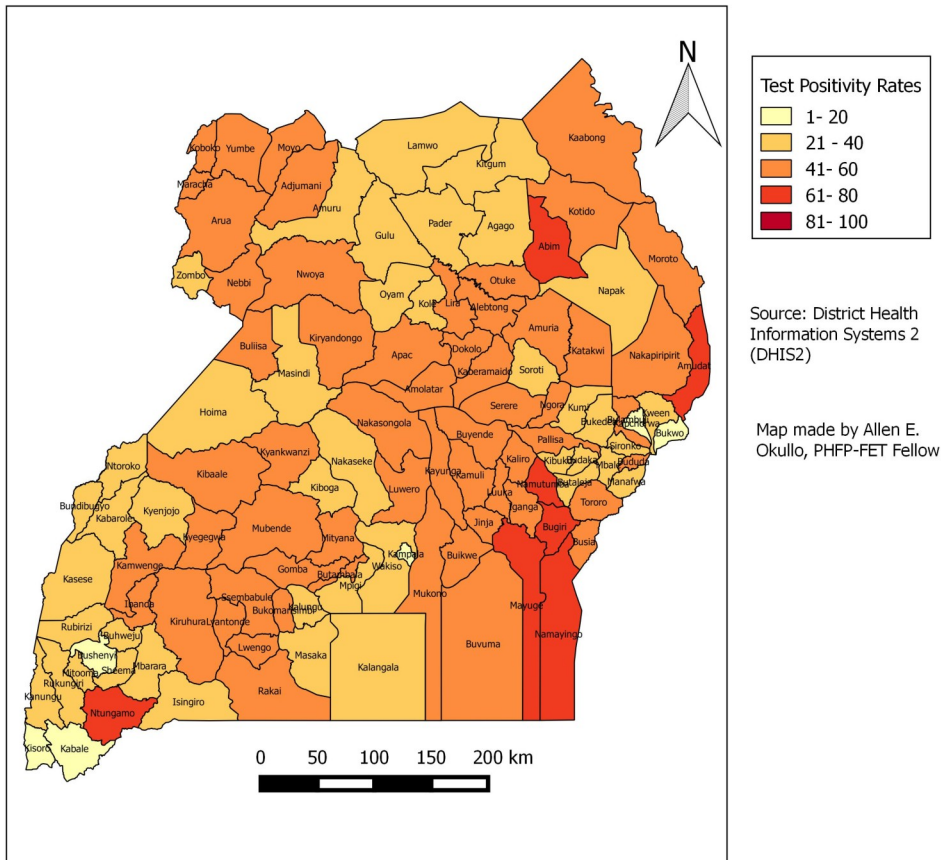


Below are maps showing the changes in Test Positivity Rates for malaria in quarter 4, 2015 compared to quarter 3, 2015 and 4, 2014.

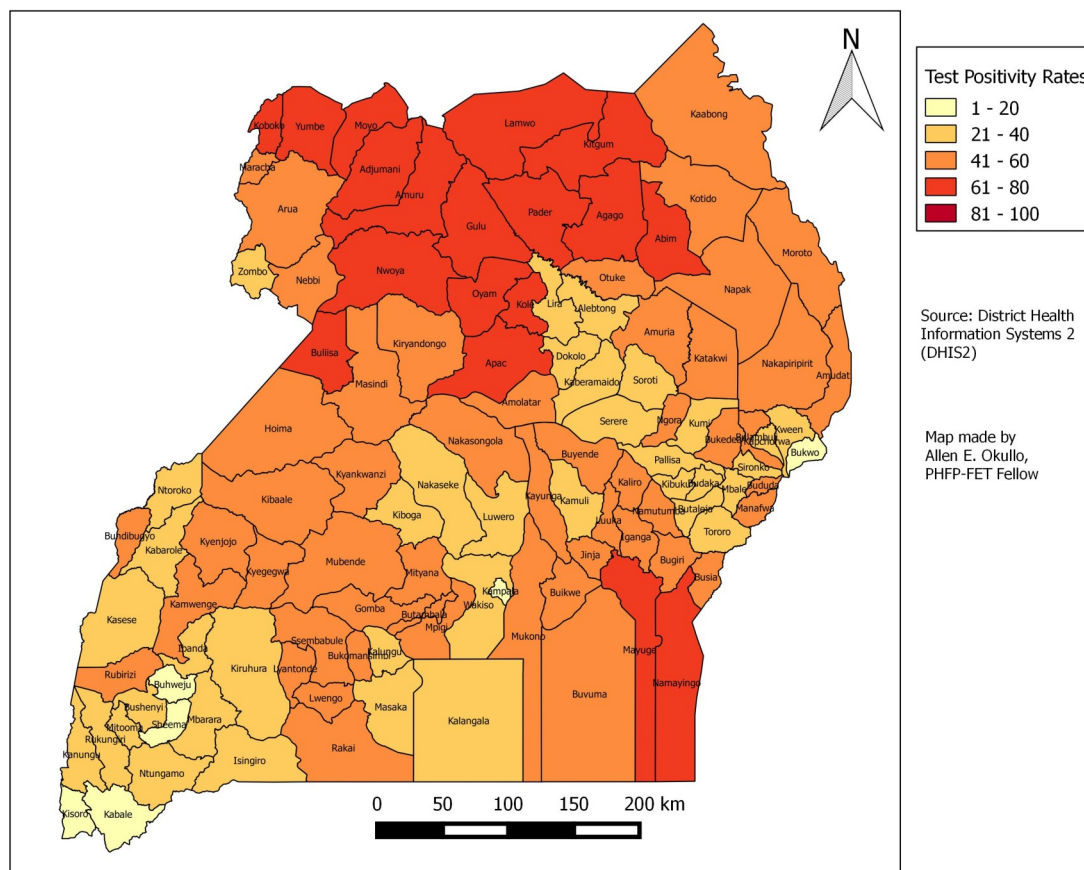
Test Positivity Rates at district level in Uganda, 2015 Quarter4



Test Positivity Rates at district level in Uganda, 2014 Quarter4



Test Positivity Rates at district level in Uganda, 2015 Quarter3



Indicator definitions

- Malaria cases reported/diagnosed comprises both laboratory confirmed and clinically diagnosed cases
- Absolute number of malaria cases (OPD and IPD) and number of laboratory diagnostic tests done (Microscopy and Rapid diagnostic tests) during the month
- Malaria incidence : Number of malaria cases diagnosed per 1000 population per month(in graphs) and quarter(in tables)
- Case fatality: Percentage of deaths among all malaria related admissions
- Comparison of reported malaria cases with laboratory tests done : Total laboratory tests done divided by the total malaria reported cases.
- Test positivity rate: Percentage of malaria positive laboratory tests among all tests done (Microscopy and RDTs)
- Proportion of diagnosed cases with a positive laboratory test
- IPTp1, IPTp2 and ANC coverage: Percentage of pregnant mothers attending their first Ante natal visit who receive IPTp1, IPTp2 and ANC LLINs
- Reporting completeness: Percentage of monthly reports received from health facilities in relation to the expected
- Reporting timeliness: Percentage of monthly reports received from the health facilities within two weeks of end of month.
- Malaria prevalence by microscopy among children 0-59 months is the proportion of children in the community in that age range with a positive blood slide result for malaria.

Upcoming Events

There are a number of events that have been planned for the next quarter, January to March, 2016. These include:

1. Implementation of Epidemic control interventions in Northern Uganda
2. Preparation of the writing process for the concept note to Global Fund
3. Preparation for the LLINs campaign
4. Expert review meeting on the Malaria epidemic in Northern Uganda
5. IVM Thematic Working Group meeting
6. Dissemination of updated IPT guidelines
7. Study with Clinton Health Access Initiative on the over consumption of ACTs