ACT Consortium

Presentations, Posters, Symposia & Abstracts

American Society of Tropical Medicine 61st Annual Meeting

Atlanta Marriott Marquis -- Atlanta, GA, USA -- 11th-15th Nov 2012

The ACT Consortium has a strong turnout at ASTMH this year, with investigators presenting 10 Oral presentations in Scientific Sessions, participating in or chairing 5 symposia, and showing 14 posters.

For ease, we have prepared this document which lists each presentation, poster, and symposium as well as the abstract in chronological order. We look forward to welcoming you to any or all of the presentations, posters or symposia during the course of the 61st Annual Meeting of the American Society of Tropical Medicine and Hygiene.

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ABOUT THE ACT CONSORTIUM:

The ACT Consortium is an **international research collaboration** providing evidence to expand and improve the use of effective malaria drug treatment in Africa and Asia. Artemesinin combination therapies are widely recommended for treating P. *falciparum* malaria but these drugs often do not reach the people who need them. There is potential to greatly enhance their value as an effective malaria treatment and control tool by improving access and appropriate use in malaria endemic countries.

ANSWERING KEY QUESTIONS ON MALARIA DRUG DELIVERY

More widespread use of ACTs is now a reality in international and national guidelines, but it is clear that there are multiple gaps in knowledge as to how best to deploy them.

The Consortium brings together operational malaria research groups working in Africa, America, Asia and Europe to undertake a coordinated programme of research to address priority questions.

The aim is to generate evidence which enhances the effectiveness of ACTs by improving access, targeting, safety and quality. The Consortium's research aims to be directly relevant to policy-makers, programme managers, and practitioners and to be used to improve and inform guidelines and practice in malaria endemic areas.

ACT CONSORTIUM RESEARCH THEMES

The Consortium's research projects examine **four** key areas for improved drug delivery:

Improving access: Despite guidelines recommending their use, a significant proportion of patients with malaria do not receive ACTs because the drugs are not available at the patients' closest source of health care. Consortium projects are evaluating models of ACT delivery for public sector providers, private facilities, retailers, community health workers and mothers/caretakers. This theme is providing evidence aimed at ensuring that greater numbers of people in malaria endemic areas have access to effective malaria drugs which are appropriately used.

Improving drug targeting: There is an expanding body of evidence to show that ACTs (and other malaria drugs) are frequently prescribed to those who do not have parasites while many patients who do have parasite do not get them. National and international guidelines now advocate for universal access to parasite based malaria diagnosis to ensure effective targeting of treatment. Research is underway in 9 countries to determine the impact on malaria drug use and health outcomes of interventions to improve rational drug prescribing and dispensing, including the use of malaria rapid diagnostic tests in the public and private sector. This aims to provide evidence to ensure that ACTs are effectively targeted at those who need them. Many of the projects focus on the accuracy of RDTs and their use by clinicians.

Safety: Millions of doses of ACTs are used annually and even though the drugs have a good safety record in trials, there is little pharmacovigilance data on the use of ACTs in practice. Of interest is the effect of repeated dosing with ACTs, particularly amongst children and in pregnancy when patients may have successive malaria episodes over a long time period. The Consortium is building a picture of rare side-effects by collecting, collating and evaluating data on the safety of ACTs. Millions of patients now have access to HIV drugs and antibiotics are frequently applied with malaria drugs. The ACT Consortium is also evaluating pharmacokinetic interactions between ACTs and these drugs, and recording safety data in patients who are co-treated.

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Quality: There are major concerns over the quality of available malaria drugs because recent evidence shows high rates of counterfeit or poor quality drugs in several settings from South East Asia and Africa. Poor quality drugs result in poor treatment outcomes and the development and propagation of drug resistance. The ACT Consortium has projects developing sampling methods and simplified laboratory and field tests for rapid detection of poor quality ACTs entering the market. Through drug quality laboratories, a large scale survey of malaria drug quality in Africa and Asia is being undertaken and is linked to international efforts to combat the trade in poor quality and counterfeit drugs.

Most of the consortium's projects are collecting data on more than one of these key areas.

WHO WE ARE

The ACT Consortium brings together a group of researchers collaborating to deliver high quality multidisciplinary research to improve access, targeting, safety and quality of artemisinin combination therapies for malaria treatment.

Each project (country) has a Principle Investigator (PI) who is the overall project leader. PIs meet in the **PIs group**. A **Steering Committee** is elected from among the PIs and acts as a mechanism for the consortium to coordinate progress and develop strategies and plans. Projects are supported by a group of **Core Scientists** with expertise in statistics, economics, epidemiology, social science and medicine. The Core Scientists form part of a **Secretariat** which is based at the **London School of Hygiene & Tropical Medicine**, and is responsible for the day-to-day management of the consortium, monitoring programme activities against milestones, timely reporting to funders and working to maximise the comparability of results generated across the consortium's projects. It also plays a role in communications and dissemination of research results. An independent **Expert Oversight Committee** provides advice on the direction, relevance and progress of the consortium's activities.

To promote and ensure cross-project analysis and reporting, a series of **Work-streams** have been devised to conduct meta-analyses and reviews of consortium findings. The workstreams are made up of Consortium investigators and Secretariat and have developed specific outputs, including a mechanism for data sharing. Workstreams are designed to maximise the applicability of consortium data for answering specific methodological and operational questions. The Consortium secretariat and investigators also liaise directly with national, regional and international policy-makers and programme managers to ensure effective dissemination of key findings and responses to specific operational questions.

WHERE WE WORK

The ACT Consortium conducts research projects in 9 malaria endemic countries: Afghanistan, Cambodia, Cameroon, Ghana, Malawi, Nigeria, Rwanda, South Africa, Tanzania, and Uganda.

INSTITUTIONS

The ACT Consortium is funded by the **Bill and Melinda Gates Foundation** and has partners throughout Africa, Asia, Europe and the United States. The partner institutions among which PIs and collaborators are based include:

Centres for Disease Control and Prevention (CDC), USA	**Karolinska Institutet**, Sweden
College of Medicine, University of Malawi, Malawi	**Kilimanjaro Christian Medical Centre (KCMC)**, Tanzania
College of Medicine, University of Nigeria, Nigeria	**Kintampo Health Research Centre**, Ghana
Dangme West District Health Directorate, Ghana	**Liverpool School of Tropical Medicine**, UK
Georgia Institute of Technology, USA	**London School of Hygiene and Tropical Medicine**, UK
Heath Protection and Research Organisation, Afghanistan	**National Institute for Medical Research**, Tanzania
Ifakara Health Institute, Tanzania	**University of Cape Town**, South Africa
Infectious Disease Research Collaboration, Uganda	**University of Copenhagen**, Denmark
	University of Yaoundé, Cameroon

Programme of Events

ACT Consortium @ ASTMH

List of Presentations, Posters and Symposia with ACT Consortium Staff and investigators:

Time	Location	Session Type	Session Number	Session Title	Abstract Number	Presentation Title	Presenter
Monday 12th November							
8.45am	Marriott - Marquis A	Scientific Session	3	Malaria: Epidemiology - Reducing Malaria through Vector Control and Community Interventions	11	11. Access and targeting of malaria treatment: assessing policy impact of the Affordable Medicines Facility - malaria and roll out of parasitological diagnosis in three regions of Tanzania	Charles Festo
10.15am	Marriott - Marquis A	Symposium	14	Rapid Tests, Rational Treatment: Current Challenges, Future Prospects and Potential Impact in Scaling-Up Access to Diagnostic Testing for Malaria		Scaling-up access to malaria diagnosis, country experiences and perspectives	Shunmay Yeung
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	334	334. Addressing over- and under-diagnosis of malaria in Tanzania: an evaluation of large-scale implementation of malaria rapid diagnostic tests (mRDTs) in three regions with varying malaria epidemiology	Admirabilis B. Kalolella
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	290	290. Has Tanzania embraced the Green Leaf? Impact of AMFm on antimalarial provision in Tanzania	Rebecca Thomson
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	332	332. Perspectives on Malaria Rapid Diagnostic Tests after National Rollout in Tanzania's Public Sector - Provider and Consumer Views from Mbeya region	Clarence Mkoba

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Time	Location	Session Type	Session Number	Session Title	Abstract Number	Presentation Title	Presenter
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	LB-110	LB-110. Prevalence of malaria parasitemia and medication utilization patterns among clients seeking care for malaria and/or fever in drug shops in two regions in Tanzania with artemisinin combination therapy (ACT) subsidies	Melissa Briggs
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	318	318. Clinical Efficacy and Safety of Artesunate-Amodiaquine and Artemether Lumefantrine for the treatment of Uncomplicated Malaria and Prevalence of Drug Resistance Markers in Ngaoundere, North Cameroon	Innocent Ali
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	337	337 - Evaluation of pre- and post-training knowledge and practices of health workers in the use of rapid diagnostic test for parasitological diagnosis of uncomplicated malaria in Cameroon	Albertine K. Lele
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	328	328 - A surveillance system to monitor the quality and authenticity of artemisinin combination treatments in Africa and Southeast Asia	Harparkash Kaur
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	341	341 - Introducing rapid diagnostic testing for malaria into the private sector: evidence from a cluster-randomized trial in registered drug shops in Uganda	Anthony Mbonye
12.00pm	Hilton - Galleria Hall	Poster Session A	24	Poster Session A	340	340 - Introducing rapid diagnostic tests into community-based management of malaria: Evidence from a cluster-randomized trial in two areas of high and low transmission in Uganda	Richard Ndyomugyenyi

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Time	Location	Session Type	Session Number	Session Title	Abstract Number	Presentation Title	Presenter
2.45pm	Hilton - Salon E	Scientific Session	37	Global Health: Technology, Education, Research and Disease Control	454	454. Malaria Rapid Diagnostic Tests in Context: insights from the ACT Consortium	Shunmay Yeung
4.45pm	Marriott - Imperial A	Scientific Session	39	Malaria: Diagnostics: Methods and Impact	460	460. Factors associated with antimalarial treatment of malaria parasite-negative patients at health facilities in three regions of Tanzania: 2010-2012	Happy Nchimbi
5.00pm	Marriott - Imperial A	Scientific Session	39	Malaria: Diagnostics: Methods and Impact	461	461. Community level management of fever in Afghanistan - the role of malaria rapid diagnostic tests.	Toby Leslie
Tuesday 13th November							
8.00am	Hilton - Salon D	Symposium	61	Current Evidence and Challenges in Responding to Non-Malaria Febrile Illness in Africa		61. Current Evidence and Challenges in Responding to Non-Malaria Febrile Illness in Africa	Hugh Reyburn (Chair)
10.45am	Marriott - Marquis B	Scientific Session	67	Malaria: Chemotherapy - Clinical Studies	549	549. Evaluating the impact of enhanced health facility-based care for malaria and febrile illnesses in children in Uganda: The ACT PRIME Study	Edith Mbabazi
11.30am	Hilton - Salon B	Scientific Session	73	Global Health: Health System Strengthening and Health Development	573	573. Training health workers to improve quality of care: Development of a theory-based training package in patient-centered services and health center management in Uganda	Catherine Maiteki-Sebuguzi / Deborah DiLiberto
12.00pm	Hilton - Galleria Hall	Poster Session B	76	Poster Session B	803	803 - Strengthening patient-centered communication through workshops and self-reflection: a cluster randomized trial at public health centers in Uganda	Susan Nayiga

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	Time	Location	Session Type	Session Number	Session Title	Abstract Number	Presentation Title	Presenter
	12.00pm	Hilton - Galleria Hall	Poster Session B	76	Poster Session B	833	833. How patients take malaria treatment: a systematic review of the literature on adherence to antimalarials	Katia Bruxvoort
	1.45pm	Marriott - Marquis B	Symposium	82	Poor Quality Antimalarial Drugs		Poor Quality Antimalarial Drugs: Measuring, Mapping and Trying to Do Something about It	Shunmay Yeung (Co-chair)
	2.10pm	Marriott - Marquis B	Symposium	82	Poor Quality Antimalarial Drugs		Drug quality results and methodological issues	Harparkash Kaur
	4.00pm	Marriott - Marquis D	Symposium	95	95. Integration of Social Science in Malaria Research and Programs: What Progress		95. Integration of Social Science in Malaria Research and Programs: What Progress?	Clare Chandler (Chair)
	4.30pm	Marriott - Marquis D	Symposium	95	95. Integration of Social Science in Malaria Research and Programs: What Progress		"And when you reach there, tell them…" Community perspectives on malaria programs and research activities	Denise Roth Allen
	4.45pm	Marriott - Marquis D	Symposium	95	95. Integration of Social Science in Malaria Research and Programs: What Progress		Observations of the role of social science in HIV compared with malaria research and programmes: Experiences from Tanzania	Peter Mangesho
Wed 14th November								
	12.00pm	Hilton - Galleria Hall	Poster Session C	128	Poster Session C Presentations	LB-333	LB-333 - Causes of Non-malaria febrile illness in Afghanistan	Toby Leslie
	12.00pm	Hilton - Galleria Hall	Poster Session C	128	Poster Session C Presentations	LB-307	LB-307 - What's in the (drug) cocktail?	Prabha Dwivedi
	12.00pm	Hilton - Galleria Hall	Poster Session C	128	Poster Session C Presentations	LB-334	LB-334 - Withholding Antimalarials in Febrile Children With Negative Rapid Diagnostic Test Results in a Moderate Malaria Transmission Area, in Uganda is Safe.	Denise Njama-Meya

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	Time	Location	Session Type	Session Number	Session Title	Abstract Number	Presentation Title	Presenter
	4.00pm	Marriott - Marquis A	Symposium	144	144. Partnerships Against Malaria		144. Partnerships Against Malaria	Wlfred Mbacham (Chair)
Thurs 15th November								
	9.00am	Marriott - Marquis D	Symposium	157	Appropriate Case Management in the Private Sector	4	4. What are the issues in improving reliability of malaria case management in the private sector?	David Schellenberg (replaces David Bell)
	9.30am	Marriott - Marquis B	Scientific Session	115	Malaria: Epidemiology: Malaria in Pregnancy and Measuring Changes in Malaria Burden	1441	1441 - Assessment of malaria control progress over a two-year period using a continuous 'rolling' Malaria Indicator Survey across age groups in Chikhwawa district, Malawi	Dianne Terlouw

Abstracts

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 4

Attendees: Catherine Goodman, Rebecca Thomson, Katia Bruxvoort, Happy Nchimbi, Charles Festo, Admirabilis Kalolella, Patrick Kachur, Clarence Mkoba, Denise Allen

Who is presenting? Charles Festo

Where is the presentation? Scientific Session 3: Malaria: Epidemiology - Reducing Malaria through Vector Control and Community Interventions

What time is the presentation? November 12, 2012, 8:00 – 9:45am

What type of presentation: Oral Presentation

ABSTRACT

ASTMH Abstract Number: 2132

Title: Access and targeting of malaria treatment: assessing policy impact of the Affordable Medicines Facility - malaria and roll out of parasitological diagnosis in three regions of Tanzania

Abstract:

Artemisinin-based combination therapy (ACT) is the first line antimalarial in most endemic countries, but there are concerns that access is poor, while targeting to patients with parasitemia is also highly inadequate. In Tanzania national implementation is underway of strategies to improve both access and targeting of ACTs. Access is being addressed through the Affordable Medicines Facility - malaria, whereby quality assured ACTs are heavily subsidised in the public and private sectors. Targeting is being addressed through provision of rapid diagnostic tests (RDTs) and enhanced microscopy in public health facilities. To evaluate the impact of these two interventions, we conducted large scale household surveys at baseline and follow up in three regions with varying malaria transmission (Mwanza, Mbeya and Mtwara, where parasite prevalence was 23.8%, 23.0% and 2.1% respectively in 2010).

In 2010 and 2012 we visited 80 randomly selected enumeration areas in each region. At baseline 5,428 households and 20,900 people were interviewed (follow up data collection is ongoing). All household members reporting fever in the past 14 days were asked about treatment obtained.

Of those with fever at baseline, 29.5% sought care at a drug store/pharmacy, 19.1% at a government health facility, 11.5% at a general retailer, and 11.7% at other sources. In Mbeya the proportions visiting government facilities and drug stores were almost equal, while in Mwanza many more people visited drug stores and in Mtwara government facilities were the most common source. The percentage of fevers treated at government facilities was 35.0% for children <5 years old and 14.6% for over 5s.

At baseline only 10.4% of people reporting fever obtained an ACT the same day or next day of fever onset (18.7% of under 5s and 7.7% of over 5s). Only 10.7% of people with fever received a blood test (19.6% in the wealthiest quintile and 4.2% in the poorest quintile).

We will compare baseline findings with those from the endline to assess how access and targeting of drugs have been affected by these two key interventions, and to explore factors associated with ACT and diagnostic test use. These findings will allow exploration of the interaction of large scale access and targeting strategies at the community level, across all age groups, in diverse settings in terms of transmission and access to health care.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: GUARD

Attendees: Shunmay Yeung

Who is presenting? Shunmay Yeung

Where is the presentation? Rapid Tests, Rational Treatment: Current Challenges, Future Prospects and Potential

What time is the presentation? November 12, 2012, 10.15am

What type of presentation: Symposium

ABSTRACT

ASTMH Abstract Number:

Title: Scaling-up access to malaria diagnosis, country experiences and perspectives

Abstract: None Available

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 4

Attendees: Catherine Goodman, Rebecca Thomson, Katia Bruxvoort, Happy Nchimbi, Charles Festo, Admirabilis Kalolella, Patrick Kachur, Clarence Mkoba, Denise Allen

Who is presenting? Admirabilis Kalolella

Where is the presentation? Poster session A

What time is the presentation? Monday, November 12, 2012, Noon – 1:45 pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 1342

Title: **Addressing over- and under-diagnosis of malaria in Tanzania: an evaluation of large-scale implementation of malaria rapid diagnostic tests (mRDTs) in three regions with varying malaria epidemiology**

Abstract:

Artemisinin based combination therapy (ACT) is the first line drug in most malaria-endemic countries, but there are concerns that quality of care remains poor. Patients needing ACT often do not receive it, but there is also considerable over-treatment due to the lack of accurate diagnosis and inappropriate management. In 2010-2012, Tanzania rolled-out malaria rapid diagnostic tests (mRDTs) at government health facilities to improve treatment of febrile illness. Here, we report results of health facility surveys to assess treatment practices before and after mRDT scale up in three regions with varying malaria epidemiology. Patients with fever in the previous 48 hours were enrolled at 320 randomly selected health facilities in Mwanza, Mbeya, and Mtwara regions in May - October 2010 and March - August 2012. Patients were interviewed following their consultation, and data were collected on patient characteristics, previous treatment for fever, and care received at the facility. Finger prick blood samples were taken by study staff to test for malaria parasitemia. Health workers seeing patients were also interviewed about their training and supervision, knowledge, and facility stocks of antimalarials and mRDTs. At baseline, data were collected on 1746 patients, of which only 15.9% received a diagnostic test from facility health workers. Based on study blood smears, 20.9% tested positive in Mtwara, 6.6% in Mwanza, and 1.6% in Mbeya. An ACT was obtained by 65.8% of patients testing positive by the study blood slide and 39.0% of patients testing negative, meaning that overall only 58.5% of patients received appropriate malaria treatment given their study blood smear result. We will compare these results with those from 2012 to evaluate the success of mRDT roll-out at addressing over- and under-diagnosis of malaria, and the role of stock-outs and health worker practices in addressing these key problems. These data will contribute to enhancing interventions to increase appropriate treatment of patients with and without malaria in Tanzania and other malaria-endemic countries.

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PROJECT AND ATTENDEE DETAILS

Project Number: 4

Attendees: Catherine Goodman, Rebecca Thomson, Katia Bruxvoort, Happy Nchimbi, Charles Festo, Admirabilis Kalolella, Patrick Kachur, Clarence Mkoba, Denise Allen

Who is presenting? Rebecca Thomson

Where is the presentation? Poster Session A

What time is the presentation? Monday, November 12, 2012: Noon – 1:45 pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 1411

Title: Has Tanzania embraced the Green Leaf? Impact of AMFm on antimalarial provision in Tanzania

Abstract:

In Tanzania the first line antimalarial is artemisinin based combination therapy (ACT), but uptake remains low. The Affordable Medicines Facility – malaria (AMFm) was launched in 2010 in eight national-scale pilots, to increase access by subsidizing quality-assured ACTs (QAACTs), which have a green leaf logo. We conducted nationally representative surveys of public and private antimalarial outlets before AMFm implementation and one year after to assess impact on QAACT affordability, availability and market share. Here we present detailed results for mainland Tanzania, stratified by rural/urban area and outlet type. This work was commissioned by the Global Fund to Fight AIDS, Tuberculosis and Malaria as part of the AMFm Phase 1 Independent Evaluation.

We randomly selected 49 wards at baseline (2010) and follow up (2011), and visited all outlets with potential to stock antimalarials, collecting data on outlet characteristics and stocking patterns from outlets with antimalarials in stock. 3,151and 3,785 outlets were enumerated at baseline and endline respectively, of which 631 and 788 stocked antimalarials and were interviewed.

Key results at baseline include:

Availability: 78.6% of public health facilities (PHFs) stocked QAACTs compared to 10.7% of private for profit (PFP) outlets. Within PFP outlets, pharmacies were most likely to stock QAACTs (65.3%), compared to less than 10% of drug stores and general stores.

Affordability: 78% of QAACTs in PHFs were provided free; the rest had a median price of $0.47 per adult equivalent treatment dose. QAACTs were most costly in PFP outlets (median $4.93), especially in urban areas ($7.04). Among PFP outlets, non-artemisinin drugs, such as SP and amodiaquine, were the cheapest antimalarials.

Market share: QAACTs had a market share of 49.1% in urban areas, while non-artemisinin therapy dominated the rural market (78.2%). QAACT market share was very low in PFP outlets (1.0%), compared to 96% for non-artemisinin therapies.

These findings will be compared with results at follow up to assess the impact of AMFm on these key indicators.

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PROJECT AND ATTENDEE DETAILS

Project Number: 4

Attendees: Catherine Goodman, Rebecca Thomson, Katia Bruxvoort, Happy Nchimbi, Charles Festo, Admirabilis Kalolella, Patrick Kachur, Clarence Mkoba, Denise Allen

Who is presenting? Clarence Mkoba

Where is the presentation? Poster Session A

What time is the presentation? Monday, November 12, 2012, Noon - 1:45 pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 1234

Title: Perspectives on Malaria Rapid Diagnostic Tests after National Rollout in Tanzania's Public Sector – Provider and Consumer Views from Mbeya Region

Abstract:

As part of its national strategy to improve malaria case management, Tanzania has gradually been rolling out malaria rapid diagnostic tests (mRDT) in the public sector since 2008. A multidisciplinary evaluation to assess the effectiveness of this strategy in three regions is underway. We present results of qualitative research from two districts in Mbeya Region where mRDTs were introduced in February 2011. Qualitative interviews were conducted with health authorities, providers, and community members about their experiences with malaria diagnosis and treatment post mRDT implementation. A total of 28 interview transcripts were reviewed for content analysis. Several conflicting views and practices emerged. Whereas laboratory and pharmacy officers were more likely to express confidence in mRDT accuracy, other authorities were less convinced of their usefulness; some felt more studies on mRDT quality were needed. Others expressed concerns that clinicians were ignoring negative mRDTs in favor of artemether-lumefantrine (ALu) treatment. Providers and community members confirmed their suspicions. While some providers acknowledged ignoring negative mRDTs for patients with malaria symptoms, they also noted that such patients often improved after ALu treatment. Other providers adopted a more "wait and see" approach, advising patients to return in 2-3 days if symptoms persisted. Although the extent of such practices is not known, the use of ALu for negative mRDTs was cited as one of the malaria challenges for the region. Stock outs of mRDT were mentioned as another. Regional authorities noted that within the first 8 months of implementation, 4 out of 8 districts had experienced a stock out. Although mRDT stock outs were seen as less disruptive for facilities that also practiced microscopy, facilities without microscopes reported reverting to clinical diagnosis. These challenges need to be addressed early on if improvements in malaria case management are to be achieved. Such strategies include identifying effective measures to improve provider adherence to mRDT as well as addressing bottlenecks in the mRDT supply chain.

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PROJECT AND ATTENDEE DETAILS

Project Number: 4

Attendees: Catherine Goodman, Rebecca Thomson, Katia Bruxvoort, Happy Nchimbi, Charles Festo, Admirabilis Kalolella, Patrick Kachur, Clarence Mkoba, Denise Allen

Who is presenting? Melissa Briggs

Where is the presentation? Poster Session A

What time is the presentation? Monday, November 12, 2012: Noon – 1:45 pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: LB-110

Title: Prevalence of malaria parasitemia and medication utilization patterns among clients seeking care for malaria and/or fever in drug shops in two regions in Tanzania with artemisinin combination therapy (ACT) subsidies

Abstract:
In malaria endemic countries, many patients with fever and/or malaria go to drug shops as their initial source of care. In Tanzania artemisinin-based combination therapies (ACTs) sold through these shops are currently subsidized through the Affordable Medicines Facility-malaria program. This study was designed to assess the prevalence of malaria parasitemia and drug-purchasing patterns among clients presenting to these shops for fever or malaria. We conducted a cross-sectional survey in 73 out of 756 randomly selected drug shops in Mtwara and Mwanza, during March-May 2012. Government certification of drug shops had occurred in Mtwara, but not Mwanza. Data collectors spent one day at each shop recruiting clients who had purchased fever or malaria medicines. After the medications had been purchased, the client was interviewed and the sick client or family member was tested for malaria with rapid diagnostic tests and malaria parasite smears. In total, there were 784 participants, aged 0-90 years, 50% male. Malaria parasitemia prevalence was 21% in participants under 5 years and 11% in those over 5 years (prevalence odds ratio [pOR] 2.05, 95% confidence interval [CI] 1.32-3.16). Twenty-one percent of clients purchased ACTs, of which 72% were subsidized. Of the ACTs purchased, 20% were for participants who tested positive for malaria. Clients were more likely to have purchased ACTs for participants who were under 5 years (38% vs. 15%; pOR 3.29, 95% CI 2.27-4.76), febrile at the time of the interview (31% vs 19%; pOR 1.86, 95% CI 1.18-2.94) seen at a health facility earlier that day (41% vs. 18%; pOR 3.05, 95% CI 1.86-5.01), or parasitemic by our tests (31% vs 19%; pOR 1.91, 95% CI 1.21-3.00). Clients were more likely to purchase ACTs for persons with parasitemia than those without. However, most parasitemic clients did not purchase an ACT, and most ACTs sold were for non-parasitemic persons. This highlights the importance of investigating further ways to promote rapid, effective treatment in patients that utilize the informal sector as their initial source of care.

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PROJECT AND ATTENDEE DETAILS

Project Number: 5

Attendees: Innocent Ali, Wilfred Mbacham

Who is presenting? Innocent Ali

Where is the presentation? Poster Session A

What time is the presentation? Monday, November 12, 2012: Noon – 1:45 pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 318

Title: **Clinical Efficacy and Safety of Artesunate-Amodiaquine and Artemether Lumefantrine for the treatment of Uncomplicated Malaria and Prevalence of Drug Resistance Markers in Ngaoundere, North Cameroon**

Abstract:

Cameroon switched policy for treatment of uncomplicated malaria to antimalarial to artesunate-amodiaquine (AS-AQ) and fixed dose artemether-lumefantrine (AL) respectively in 2004 against a backdrop of amodiaquine treatment failure. After four years of implementation of this drug policy, country-specific evidence-based data to support the continuous efficacy and safety profile of ACTs are still needed. This study was carried out in collaboration with the national malaria control program to generate data to support the continuous use of ACTs for malaria case management.

A randomised open label trial was conducted between September and December 2007 at the Ngaoundere Protestant Hospital, Ngaoundere, Cameroon. One hundred and fifty patients between six months to 14 years of age with uncomplicated malaria were randomized to receive standard doses either AS-AQ (73) or AL (77) and followed up for 28 days according to WHO 2003 protocol. Drug safety was evaluated using standard clinical and laboratory parameters and safety concerns classified according to the common toxicity criteria. Response was classified according to WHO and isolates were genotyped for the *msp-2* gene to determine recrudescent parasites. Pre-treatment blood samples were used to determine the prevalence of resistant mutations in the *pfcrt*, *pfmdr1*, dhfr and*dhps* genes by sequencing. Ethical and administrative clearances were obtained from the National Ethics Committee and the Ministry of Public Health in Cameroon respectively.

PCR-corrected cure rates were 100% for AL, and 96.4% for AS-AQ. The combinations were well tolerated clinically and biologically. By Day 14, the mean total bilirubin, creatinine and ALAT values were slightly increased in subjects treated with AS-AQ. Changes in white cell counts and platelet count were significantly different ($p < 0.05$) in the two drug groups, but were of no clinical significance. All side-effects were transient and therefore disappeared by the end of treatment.

Both AS-AQ and AL are highly effective and well-tolerated for the treatment of uncomplicated falciparum malaria in Ngaoundere, Cameroon supporting their continuous use. High prevalence of mutant *pfcrt and pfmdr1* alleles confirm long standing North to South increase in high level CQ resistance and might compromise AQ use in combination therapy. Long-term monitoring of safety and efficacy and molecular markers is however, highly solicited.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 5

Attendees: Albertine K Lele, Wilfred Mbacham

Who is presenting? Albertine K Lele

Where is the presentation? Poster Session A

What time is the presentation? Monday, November 12, 2012: Noon – 1:45 pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 337

Title: **Evaluation of pre- and post-training knowledge and practices of health workers in the use of rapid diagnostic test for parasitological diagnosis of uncomplicated malaria in Cameroon**

Abstract:
Rapid diagnostic tests (RDTs) for malaria diagnosis have attracted interest in recent years because of their high specificity and sensitivity and are suitable for resource-constrained settings as they require minimal infrastructure. However, many health workers who are the main players for the effective use of this new technique do not yet master it. The Cameroon National Malaria Control Programme (NMCP) only recently introduced RDTs in 50 pilot districts in 2011. Health workers (HWs) from mission and public health facilities in Yaounde and Bamenda cluster randomized in a research to evaluate the provision of appropriate treatment to malaria patients were invited to attend a 1 day and 3 days workshop on "Ensuring appropriate treatment for uncomplicated malaria" and "Improving quality of care for management of suspected malaria" respectively. All workshop attendees completed a pre training questionnaire which covered aspects such as clinical manifestation and methods of malaria diagnosis, the role of an RDT, who should conduct an RDT, the practical steps, time to read and interpretation of the results, treatment according to test results. During the training, HWs received lectures and practical exercises on all the above mentioned aspects including practical steps with assistance of a 16- step WHO RDT job aid and treatment guidelines from NMCP. Participants were also individually supervised during the performance of an RDT and graded using a checklist. The same questionnaire was used for post training evaluation. Of the 54 HWs from Yaounde, 62.5% were nurses, 20.8% medical doctors and 16.7% laboratory technicians. The knowledge increase on clinical manifestation and diagnostic methods for malaria for pre and post training was 10.42% while knowledge on RDT use had an increase of 52.3%. Knowledge on treatment based on test results had an increase of 28.2% while practical skills improved from 0% to 80%. Of the 40 HWs from Bamenda, 62.5% were nurses, 25% medical doctors and 12.5% laboratory technicians. The knowledge increase on clinical manifestation and diagnostic methods for pre and post training was 8.9% while knowledge on the RDT had a 35.4% increase. The knowledge on treatment based on test results had an increase of 17.6% while practical skills improved from 0% to 86%. If HWs are given appropriate training, clear instructions with appropriate job aids, they can use RDTs appropriately irrespective of their cadre and setting.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 14

Attendees: Harparkash Kaur

Who is presenting? Harparkash Kaur

Where is the presentation? Poster Session A

What time is the presentation? Monday, November 12, 2012: Noon – 1:45 pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 328

Title: **A surveillance system to monitor the quality and authenticity of artemisinin combination treatments in Africa and Southeast Asia**

Abstract:
Poor quality Artemisinin Combination Therapies (ACTs) in malaria-endemic countries pose an enormous threat to malaria patients. The lack of reliable estimates of the prevalence of poor quality ACTs and their impact on public health makes it difficult for the national regulatory authorities (NRAs) to determine the need and scale of interventions to put in place. Our aim is to provide robust estimates of the frequency of substandard, counterfeit and degraded artemisinin containing drugs, and to develop standardised methodologies for sample collection. As part of the overall project we have explored the use of different sampling strategies to collect drugs from public and private healthcare providers in Rwanda, Cambodia, Ghana and Tanzania, with sampling in other locations underway. Once collected all samples are logged onto a database, the packages scanned and, tablets weighed and measured. Qualitative (mass spectrometry, near infrared and Raman spectroscopy) and quantitative (high performance liquid chromatography and high performance liquid chromatography-mass spectrometry) content analyses are then conducted. Thus far over 3,500 ACTs have been analysed. Preliminary content analyses indicate that a number of samples fall below the internationally recommended thresholds (90-110 %) for their stated active pharmaceutical ingredient with variations found to occur both between and within batches of the same brand. To assist in classifying whether the ACTs are degraded, due to environmental impact rather than manufacturing practices, we are investigating the ageing of a set of patented ACTs in field and in laboratory based studies, with quantitative analysis carried out on these samples at regular intervals over a period of four years. Following cross verification between the three collaborating laboratories, the results will be shared with the country specific NRA and stored on the "Counterfeit Drug Forensic Network - CODFIN" database.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 3

Attendees: Sian Clarke, Pascal Magnussen

Who is presenting? Sian Clarke, Pascal Magnussen

Where is the presentation? Poster Session A – Hilton Hotel

What time is the presentation? Mon 12th November (all day)

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 341

Title: **Introducing rapid diagnostic testing for malaria into the private sector: Evidence from a cluster-randomised trial in registered drug shops in Uganda**

Abstract:

Universal access to diagnostic testing for malaria is now recommended by WHO, to encompass all treatment providers. Many malaria cases are treated outside the formal health sector, with drug shops often being the first, and only, source of treatment. Rapid diagnostic tests (RDTs) provide a simple means of confirming malaria diagnosis in drug shops, and improved diagnosis may also help to ensure that the drugs sold are appropriate. As yet, there is little evidence of the impact of diagnostic testing on antimalarial drug sales and referral practices by drug shops, particularly in Africa.

A cluster-randomised trial to evaluate the impact and cost-effectiveness of using RDTs in registered drug shops, compared with presumptive treatment, has been conducted in Mukono District, Uganda since October 2010. The trial aims to evaluate the impact of diagnostic testing on the proportion of drug shop clients who receive appropriate ACT treatment, in line with parasitological status as defined by malaria microscopy on a research slide collected at the same time as the RDT. The study will also provide evidence on the feasibility; operational challenges and acceptability of this approach.

A total of 60 drug shops were randomised to receive training either in the use of RDTs or presumptive diagnosis of malaria. All drug shop vendors (DSVs) were trained on the national malaria treatment guidelines, use of rectal artesunate pre-referral treatment, and when to refer. Supporting interventions included activities to raise community awareness, and close support supervision to DSVs for the first 3 months of implementation. Since January 2011, supervision has been scaled back to mimic levels typically seen in health systems in rural Africa. Nonetheless, adherence to RDT results by DSVs has remained high, with over 95% of ACT treatments sold being consistent with RDT test results.

We will describe the design of the intervention in drug shops, and present data on adherence to RDT result and treatment guidelines by DSVs; referral practices; and changes over the first 15 months of the trial.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 2

Attendees: Sian Clarke, Pascal Magnussen

Who is presenting? Sian Clarke, Pascal Magnussen

Where is the presentation? Poster Session A – Hilton Hotel

What time is the presentation? Mon 12th November (all day)

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 340

Title: **Introducing rapid diagnostic tests into community-based management of malaria: Evidence from a cluster-randomised trial in two areas of high and low transmission in Uganda**

Abstract:

Universal access to diagnostic testing for malaria is now recommended by WHO, to encompass all levels of health care, including community-based treatment programmes. Rapid diagnostic tests (RDTs) provide a simple means of confirming malaria diagnosis in locations lacking electricity and qualified health staff. Some countries have begun to introduce RDTs at community level, and data on the impact of diagnostic testing on treatment and referral practices by community health workers is still limited.

A cluster-randomised trial to evaluate the impact and cost-effectiveness of RDTs when used by community medicine distributors (CMDs), compared with presumptive treatment, has been conducted in two areas with contrasting malaria transmission in Rukungiri District, Uganda since June 2010. The trial aims to evaluate the impact of diagnostic testing on the proportion of children who receive appropriate ACT treatment and referral under low and high transmission, as defined by malaria microscopy on a research slide collected at the same time as the RDT. The study will also provide evidence on the operational challenges and community acceptability of RDTs.

A total of 120 communities (379 CMDs) were randomised to training either in use of RDTs or presumptive diagnosis of malaria. All CMDs were trained on how to give antimalarial treatment with ACTs, rectal artesunate pre-referral treatment, and when to refer. Supporting interventions included activities to raise community awareness, and close support supervision to CMDs for the first six months of implementation. Since January 2011, supervision has been scaled back to mimic levels typically seen in health systems in rural Africa. Nonetheless, adherence to RDT results by CMDs has remained high, with over 95% of ACT treatments given being consistent with the results of the RDT test.

We will present data on adherence to RDT result and treatment guidelines by CMDs; compare referral practices and frequency of patients following through with referral in the two arms; and changes in these outcomes, over the first 18 months of the trial.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: **RDT In Context Working Group**

Attendees: **Shunmay Yeung, Toby Leslie**

Who is presenting? **Shunmay Yeung**

Where is the presentation? **Hilton - Salon E**

What time is the presentation? **Mon 12th November – 2.45pm**

What type of presentation: **Oral Presentation**

ABSTRACT

ASTMH Abstract Number: **454**

Title: **Malaria Rapid Diagnostic Tests in Context: insights from the ACT Consortium**

Abstract:
The availability of affordable, accurate Rapid Diagnostic Tests (RDTs) for malaria is enabling a shift from presumptive treatment to parasitological confirmation. Questions remain as to where RDTs should be deployed, best practice to support their effective deployment and their potential impact and cost under real-life conditions. Key determinants have been proposed to include the epidemiological setting, prior provider and community experiences and practices and the presence and effectiveness of supporting interventions. This paper will present a framework for considering the complex issues of RDTs as they are implemented in context, focusing on steps along a pathway from initial diagnostic policy choice through uptake and provider "adherence" to test results and on into public health impact and cost-effectiveness. The presentation will draw on the multidisciplinary work of projects within the ACT Consortium from 9 countries in Africa and Asia and present empirical data from these studies and others from the literature. This will include experiences from the introduction of RDTs through public and private sector providers, and at the community level in a variety of epidemiological and health system settings.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 4

Attendees: Catherine Goodman, Rebecca Thomson, Katia Bruxvoort, Happy Nchimbi, Charles Festo, Admirabilis Kalolella, Patrick Kachur, Clarence Mkoba, Denise Allen

Who is presenting? Happy Nchimbi

Where is the presentation? Scientific Session 39: Malaria: Diagnostics: Methods and Impact

What time is the presentation? November 12, 2012, 4:00 – 5:45pm

What type of presentation: Oral Presentation

ABSTRACT

ASTMH Abstract Number: 460

Title: Factors associated with antimalarial treatment of malaria parasite-negative patients at health facilities in three regions of Tanzania: 2010-2012

Abstract:
Over-treatment of malaria is a common problem in many malaria-endemic countries, with parasite-negative patients often receiving an artemisinin-based combination therapy (ACT) or other antimalarials, leading to over-use of ACT, and potentially delaying appropriate treatment, which may have severe consequences. Understanding factors associated with antimalarial treatment of malaria-negative patients is crucial to addressing this problem, and will be of even greater importance if malaria transmission decreases and the fraction of fevers attributable to malaria is reduced further. To understand current treatment practices and identify factors associated with antimalarial treatment of parasite-negative patients, we conducted surveys at 320 health facilities in three regions in Tanzania with varying malaria epidemiology (Mwanza, Mbeya, and Mtwara). Surveys were undertaken in 2010 and 2012 before and after nationwide roll-out of rapid diagnostic tests for malaria (mRDTs). Patients with fever in the previous 48 hours were interviewed following their consultation at the facility. Finger prick blood samples were taken by the study team to test for malaria parasitemia, allowing cross-referencing with any diagnostic test used by facility staff. Data were collected on patient characteristics, previous treatment for fever, and care received at the facility. Health workers were interviewed about their qualifications, training and supervision, knowledge, and facility stocks of antimalarials and mRDTs. At baseline, data was collected on 1739 patients (follow-up data collection ongoing). By study blood slides, 93% tested negative for malaria in Mwanza, 98% in Mbeya, and 79% in Mtwara. Overall, 42% of malaria-negative patients were treated with antimalarials by health facility workers. We will report the results of multivariate regression analyses accounting for the complex sample design to identify patient, health worker and facility-level factors associated with correct management of malaria-negative patients before and after widespread availability of mRDTs to support health worker decision-making. These results will be relevant to the success of mRDT roll-out and the design of interventions to reduce over-treatment of malaria.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 6

Attendees: Mark Rowland, Toby Leslie

Who is presenting? Toby Leslie

Where is the presentation? Scientific Session 39: Malaria: Diagnostics: Methods and Impact

What time is the presentation? November 12, 2012, 4:00 – 5:45pm

What type of presentation: Oral Presentation

ABSTRACT

ASTMH Abstract Number: 461

Title: Community level management of fever in Afghanistan - the role of malaria rapid diagnostic tests.

Abstract:
In areas of low and seasonal malaria transmission, differential diagnosis of non-specific fever is important for patient care, control of malaria and in treatment and control of non-malarial causes of fever. Afghanistan is endemic for both vivax and falciparum malaria but with a low transmission intensity and dominated by vivax which accounts for 80-90% of cases. Our previous research has shown that malaria is consistently over-diagnosed and treated at the clinic level, but little is known about how community health workers (CHW) treat patients in the community. A cluster randomised trial of malaria rapid diagnostic tests (RDT) was undertaken using 400 CHWs to recruit 2600 patients in two transmission areas of Afghanistan. All CHWs administratively attached to 22 clinics (clusters) received training on management of malaria according to Government and WHO guidelines. Half of the clinics were randomly assigned to the intervention (RDTs), while half used clinical signs and symptoms for diagnosis and treatment. The primary outcome was the proportion of patients appropriately treated and aimed to evaluate whether the intervention resulted in improved targeting of treatment for patients with and without malaria. This included the use of artemisinin combination therapy for the rarely encountered cases of falciparum malaria. The outcome was measured against PCR based diagnosis of malaria to give a gold-standard diagnosis. The accuracy of the RDT and the prescribers' response to the results was assessed. This presentation will outline the results of the study and discuss implications for policy and practice of fever treatment at community and clinic level in malaria endemic areas outside Africa.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 9

Attendees: Hugh Reyburn

Who is presenting? Hugh Reyburn (Chair)

Where is the presentation? Current Evidence and Challenges in Responding to Non-Malaria Febrile Illness in Africa

What time is the presentation? November 13, 2012, 8.00-9.45am

What type of presentation: Symposium

ABSTRACT

ASTMH Abstract Number: 61

Title: Current Evidence and Challenges in Responding to Non-Malaria Febrile Illness in Africa

Abstract:
Building on the success of the non-malaria febrile illness symposium at the ASTMH 2011 Annual Meeting, a group of international speakers will present current knowledge on the causes of non-malarial fever addressing challenges in key areas of epidemiology, diagnostics, prevention and control. The general bias towards a diagnosis of malaria is now well-established, but current knowledge of the alternative causes of fever is still very incomplete. Recent sentinel studies that take a comprehensive approach to the syndrome of fever have demonstrated considerable mismatch between clinical diagnosis patient management, and actual etiologies. These findings underscore the importance of invasive bacterial diseases, either alone or as a co-infection, as causes of fever, and also highlight a range of very common but under-recognized infections, including such as leptospirosis, brucellosis, Q fever and a range of viral infections, including dengue. Specifically, our symposium will present current evidence from recognized research centers on the prevalence, risk factors and trends in invasive bacterial disease with a focus on non-typhoidal salmonellosis, a major cause of illness and mortality among African children. Data will be presented on important zoonoses that have only recently been recognized as common pathogens in Africa. This will be followed by recent data on common viral etiologies of fever, and in particular respiratory viruses that are responsible for a high proportion of non-malarial illness among children. Finally, the session will address the current strategies employed by WHO and leading agencies in coping with the syndrome of fever during a time of changing epidemiology and new diagnostic and treatment challenges, including those posed by the threat of emerging infections that could easily overwhelm the coping capacity of resource-poor countries.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 1

Attendees: Catherine Maiteki-Sebuguzi and Edith Mbabazi

Who is presenting? Edith Mbabazi

Where is the presentation? Marriott - Marquis B

What time is the presentation? 10:45:00 AM

What type of presentation: Oral Presentation

ABSTRACT

ASTMH Abstract Number: 549

Title: **Evaluating the impact of enhanced health facility-based care for malaria and febrile illnesses in children in Uganda: The ACT PRIME Study**

Abstract:
Early diagnosis and prompt effective treatment reduces morbidity and mortality from malaria. However, inadequate health services limit appropriate fever case management in the public sector. We are conducting a cluster randomized trial in Tororo, Uganda to assess whether enhancing lower-level government health centers improves appropriateness of antimalarial treatment and patient satisfaction. Twenty health centers have been randomized; 10 to the intervention, and 10 to standard care. The intervention, which began in May 2011, includes training in health center management, fever case management, and patient-centered services, and provision of rapid diagnostic tests (RDTs) for malaria and artemether-lumefantrine when stocks run low. We are conducting a series of evaluations interviewing caregivers of children under five years as they exit health centers. Information is gathered about the purpose of the visit, diagnostic testing for malaria, diagnosis given, and medications prescribed and received, and satisfaction with the visit to the health center. If the child has fever or history of fever, a RDT is performed. Study outcomes include (1) the proportion of children with suspected malaria who were inappropriately treated for malaria, based on the result of the research RDT, considering those children with a negative RDT who were given artemisinin-based combination therapy (ACT) plus those with a positive RDT who were not given an ACT, (2) the proportion of children with a positive RDT who were inappropriately treated with a non-ACT regimen, and (3) patient satisfaction with their experience. Two rounds of interviews have been carried out, in August 2011 and February 2012. In each survey, caregivers of 200 children were interviewed, including 10 from each facility. Full results from three rounds of interviews will be presented, providing much needed evidence of the effectiveness and sustainability of a complex health facility-based intervention on provider practices and patient management

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 1

Attendees: Catherine Maiteki-Sebuguzi and Edith Mbabazi

Who is presenting? Catherine Maiteki-Sebuguzi

Where is the presentation? Location: Hilton - Salon D

What time is the presentation? 11/13/2012 11:30:00 AM

What type of presentation: Oral Presentation

ABSTRACT

ASTMH Abstract Number: 573

Title: Training health workers to improve quality of care: Development of a theory-based training package in patient-centered services and health center management in Uganda

Abstract:
Universal access to appropriate malaria case management is advocated by the World Health Organization and others to reduce malaria morbidity and mortality in low income settings. However, increasing access to services has proven challenging and the evidence base is poor. In eastern Uganda, care seekers are discouraged from attending public health facilities due poor health center management, frequent drug stock-outs, limited skills and motivation of health facility staff, and poor relationships between health workers and communities. A large cluster randomized trial, the PRIME study, is evaluating a multi-faceted health facility-based intervention to address these shortcomings in Tororo, Uganda. Field activities began in December 2010, and the intervention was rolled out in May-June 2011. Study follow-up will continue until April 2013. A central component of the PRIME intervention is a series of nine interactive training modules to strengthen health worker-patient interactions to be more patient-centered and to improve health center management in line with a revised system for maintaining supplies of rapid diagnostic tests and artemether-lumefantrine. The design of such interventions is rarely presented, reflected in the poor evidence base available for program planning. The methods used to design the PRIME modules, consisting of empirical formative research in the local area, a review of evidence of other interventions, articulation of a theory-based behavior change model, and piloting of the training modules will be reviewed. The impact of these training modules on proximal outcomes at 10 health facilities randomly assigned to receive the intervention, compared to 10 assigned to continue standard care, will be presented including daily patient attendance data, availability and management of key malaria commodities, and patient satisfaction with the health facility visit.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 4

Attendees: Catherine Goodman, Rebecca Thomson, Katia Bruxvoort, Happy Nchimbi, Charles Festo, Admirabilis Kalolella, Patrick Kachur, Clarence Mkoba, Denise Allen

Who is presenting? Katia Bruxvoort

Where is the presentation? Poster Session B

What time is the presentation? Tuesday, November 13, 2012, Noon – 1:45 pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: 1912

Title: How patients take malaria treatment: a systematic review of the literature on adherence to antimalarials

Abstract:
Artemisinin-based combination therapies (ACTs) are the first-line drugs for treatment of malaria throughout sub-Saharan Africa, and are becoming increasingly available in the private sector. However, there are concerns about sub-optimal patient adherence which may have consequences for treatment efficacy and the development of antimalarial drug resistance. In order to identify patterns in how patients use antimalarial drugs and highlight gaps in current knowledge, a systematic literature review was performed. A search was conducted in PubMed using MeSH and free text terms. Of 1242 studies initially identified, 40 met the inclusion criteria of providing quantitative data on patient adherence to antimalarials obtained for treatment. Manual search of reference lists and contacting researchers in the field yielded 11 additional studies. Patient adherence to ACTs was assessed in 23 studies, non-artemisinin-based combinations in 12, and chloroquine and other monotherapies in 20. Only two studies involved the private sector. Adherence measurement methods included self-report with and without dose timing, pill counts and biological assays. Although some studies found very high adherence to ACTs, others endeavouring to capture "real life" situations reported adherence of 64-88%. Overall, adherence was higher in studies where consent was obtained at enrolment versus at follow-up, and in studies where patient consultations were observed by the study team. Comparison of results based on different measurement methods showed higher adherence when biological assays were used, but no other clear patterns. Multivariate models in 10 studies found 28 factors associated with adherence, but no factor was significant in more than one study. The suboptimal patient adherence to ACTs obtained in the public sector and the current dearth of data from the private sector represent significant challenges to ensuring ACTs are used appropriately and remain effective. To strengthen future studies, there is a clear need for awareness of the impact of study procedures on adherence outcomes, and the identification of improved measurement methods that are less dependent on self-report.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: Quality

Attendees: Shunmay Yeung, Harparkash Kaur

Who is presenting? Shunmay Yeung (co-chair)

Where is the presentation? Marriott – Marquis B

What time is the presentation? Tuesday, November 13, 2012, 1:45-3.30 pm

What type of presentation: Symposium

ABSTRACT

ASTMH Abstract Number: 82

Title: Poor Quality Antimalarial Drugs: Measuring, Mapping and Trying to Do Something about It

Abstract:
Poor quality medicines can threaten the life of patients, and probably contribute to antimicrobial drug resistance. Although awareness is rising, the stakes are high and the challenges are formidable. Not only are falsified medicines a multi-million dollar criminal industry, but the discussions on the international regulatory framework needed to improve medicine quality have been slow, and the capacity for national regulatory authorities for investigation and enforcement are severely limited. This symposium aims to raise awareness of these issues and discuss the way forward. A new web site that maps available reports on the quality of antimalarial drugs is introduced, new screening tools discussed and new evidence on artemisinin drug quality in Tanzania, Ghana and Cambodia presented. A country perspective from Cambodia will be presented, where the battle against substandard and fake drugs has been stepped up in response to the emergence of artemisinin resistance.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number:

Attendees: Clare Chandler

Who is presenting? Clare Chandler (Chair)

Where is the presentation? Marriott – Marquis D

What time is the presentation? Tuesday, November 13, 2012, 4.00-5.45pm

What type of presentation: Symposium

ABSTRACT

ASTMH Abstract Number: 95

Title: Integration of Social Science in Malaria Research and Programs: What Progress?

Abstract:
This symposium aims to bring together those with an interest and different experiences in integrating social science – the study of social worlds – with malaria research and programs. The past two decades have seen an increasing recognition that social science can play an important role in malaria research and programs. However, the nature of that role remains contested, with questions outstanding over the novelty and usefulness of some research findings. This may reflect the underlying purpose presumed for social science in malaria. For some, social science should serve to enable the expansion of biomedical and public health programs in order to reach populations at risk of malaria. Here, studies of the social world should identify 'barriers' to the success of malaria programs, often thought to lie in the problematic beliefs of different cultures. For others, social science should attempt to understand the priorities of those considered 'at risk' and where applicable, challenge the assumptions embedded in current biomedical and public health approaches. Here, studies of the social world should aim to contextualize malaria illness, research and programs and to illuminate social processes, power relations and discourses that shape lived experiences. This symposium draws on an anthropological approach to discuss recent social science studies carried out in the field of malaria from across different settings and to reflect on the role these studies can play within malaria research and programs. The session aims to stimulate an interactive discussion about new pathways for the integration of social science into future work.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number:

Attendees: Denise Roth Allen, Clare Chandler

Who is presenting? Denise Roth Allen

Where is the presentation? Marriott – Marquis D

What time is the presentation? Tuesday, November 13, 2012, 4.30pm

What type of presentation: Symposium

ABSTRACT

ASTMH Abstract Number: 95

Title: "And when you reach there, tell them…" Community perspectives on malaria programs and research activities

Abstract:
No abstract available

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number:

Attendees: Peter Mangesho

Who is presenting? Peter Mangesho

Where is the presentation? Marriott – Marquis D

What time is the presentation? Tuesday, November 13, 2012, 4.45pm

What type of presentation: Symposium

ABSTRACT

ASTMH Abstract Number: 95

Title: Observations of the role of social science in HIV compared with malaria research and programmes: Experiences from Tanzania

Abstract:
No abstract available

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 6

Attendees: Toby Leslie, Mark Rowland

Who is presenting? Toby Leslie

Where is the presentation? Hilton - Galleria Hall

What time is the presentation? Wednesday, November 14, 2012, 4.00-5.45pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: LB-333

Title: Causes of Non-malaria febrile illness in Afghanistan

Abstract:
Not treating malaria negative patients with an antimalarial raises a dilemma for attending physicians. The patients are clearly febrile and unwell, but if they do not have malaria, what is the cause of their illness and how should it be treated? To answer this question, a study has been conducted in Afghanistan to identify the causes of illness in malaria negative outpatients with non-specific fever. Of 423 sets of blood, urine and stool samples collected from enrolled patients, 38% were positive for at least one potentially causative pathogen. These included 20 cases of viral hepatitis, 12 cases of urinary tract bacteremia, 4 cases of Q-fever, 3 cases of viral gastroenteritis and 1 case each of measles, parvovirus B19 and Crimean-Congo Hemorrhagic fever, respectively. In addition, 12 patients showed evidence of exposure to *Brucella* sp., 3 to *Leptospira* sp. and 115 to Hepatitis A virus, although there was no evidence of active infection in these patients. Only 1 patient tested positive for malaria during a follow-up visit, demonstrating that sub-diagnostic malaria is not the primary cause of fever in these patients. This study shows that the most common causes of febrile illness in Afghanistan could be differentiated by a series of simple point-of-care tests (rapid tests for malaria, viral hepatitis and the Uricult system for urinary tract infections) while respiratory infections could be identified where these tests are negative and respiratory signs are present. A rapid test for the detection of the Q-fever agent *Coxiella burnetti* is warranted in this region.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 14

Attendees: Harparkash Kaur, Prabha Dwivedi

Who is presenting? Prabha Dwivedi

Where is the presentation? Hilton - Galleria Hall

What time is the presentation? Wednesday, November 14, 2012, 4.00-5.45pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: LB-307

Title: What's in the (drug) cocktail?

Abstract:
When patients with fever present to drug shops in Cambodia and some other southeast Asian countries, they commonly receive a little plastic bag containing 4 or 5 colorful tablets and capsules, of mixed drugs ("drug cocktail). Each bag represents one "dose" and the number of bags bought depends on how much money the patient has, how sick they are and how many they want to buy. However the content of these cocktails is usually unknown by the patient and often the drug seller. In this study, 311 treatments were bought by mystery clients from randomly selected shops from 12 districts in Cambodia. Identification was first attempted visually by a pharmacist, then all drugs were analyzed by high resolution DART mass spectrometry. In total, 311 packs were analyzed containing a total of 866 different types of tablets, with an average of 2.8 different tablets per pack, but up to 9 in an individual pack. In x cases, a complete package of co-blistered artesunate and mefloquine, the first line-antimalarial for P. falciparum was sold to 23.4% of mystery clients, usually with a cocktail. Within the cocktails, the most common tablets were anti-pyretics, vitamins, antihistamines and caffeine. However antibiotics were found in 38.7% (95%CI 33.3-44.1%), the most common being amoxicillin or ampicillin at 46.0% of all antibiotics. Steroids were found in 8.9% (95% CI: 5.7-12.0%). Chloroquine was found in 11.3% and artesunate in 5.8%. These results have important implications for patient safety, antimicrobial resistance and are being used to raise awareness with regards to appropriate prescribing and selling of drugs.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 2

Attendees: Denise Njama-Meya, Pascal Magnussen, Kristian Hansen

Who is presenting? Denise Mjama-Meya

Where is the presentation? Hilton - Galleria Hall

What time is the presentation? Wednesday, November 14, 2012, 4.00-5.45pm

What type of presentation: Poster

ABSTRACT

ASTMH Abstract Number: LB-334

Title: **Withholding Antimalarials in Febrile Children With Negative Rapid Diagnostic Test Results in a Moderate Malaria Transmission Area, in Uganda is Safe.**

Abstract:
Although WHO recommends confirmatory diagnosis of all suspected malaria cases prior to treatment, in some areas of moderate/high malaria transmission children under 5 years of age with suspected malaria are still receiving antimalarial treatment. Adherence of health workers to RDT results has been poor in Uganda, due to insufficient evidence to recommend withholding treatment on the basis of negative parasitological results thus the perceived risks of a missed diagnosis outweighing all other risks. The study aim was to assess the risks of withholding antimalarials in children with a negative RDT and to provide evidence for scale-up of RDT implementation in Uganda. Objectives were to: compare fever and parasite clearance in those receive antimalarials and those who dont; determine the rate of re-attendance; and assess the safety of withholding antimalarials in children with a negative RDT result. We conducted a prospective cohort study to assess the health outcomes of children that were managed according to RDT results. Eligible children aged 1-10 years were enrolled and followed up for two weeks. In addition, the sensitivity and specificity of RDT results was determined using expert microscopy as the gold standard. A total of 163 children were recruited, 92 of whom tested RDT positive and 71 RDT negative. Of the RDT negative children who received no antimalarial treatment, none presented with fever within the two weeks follow-up period compared to 7% of RDT positive who came back with persistent fever one of whom developed complicated malaria. A total of 50 had complaints on subsequent visits ranging from URTI (26), Otitis (4), eye discharge (3), fever (2), abdominal pain (2), diarrhoea (7), dermatitis (4) helminthiasis (1), and complicated malaria (1). One hundred percent remained RDT/microscopy negative up to 2 weeks of follow-up. 50% of the patients were RDT positive initially and based on RDT result received an antimalarial. Of these,60% were reported negative following quality control microscopy reading of the blood smears results and remained negative up to day 14. The RDT sensitivity and specificity were 100% and 53% respectively. The negative predictive value was 100% and the positive predictive value 59.8%. We conclude that there was over diagnosis of malaria with the use of RDTs in an area of moderate malaria transmission however, with holding antimalarials in RDT negative febrile children aged 1 to 10 years is safe.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 5

Attendees: Wilfred Mbacham

Who is presenting? Wilfred Mbacham

Where is the presentation? Marriott – Marquis A

What time is the presentation? Wednesday, November 14, 2012, 4.00-5.45pm

What type of presentation: Symposium

ABSTRACT

ASTMH Abstract Number: 144

Title: Partnerships against malaria

Abstract:
Malaria continues to be a public health burden for African states that are also plagued by limited resources. To achieve universal coverage of interventions, programs must seek partners under a Public-Private-Partnerships framework. Sometimes, there are just no prescribed rules on how these partnerships work, yet everyone reckons that they are important. Often, African partners with highly competitive funding from donor agencies must make difficult funding decisions to the detriment of the control programs because funding is not provided to address some of the accompanying programmatic details. Companies, under the requirement of corporate social responsibility, can assist with these challenges by providing discussion platforms, technical innovations, educational material, as well as the generation of evidence for policy. True partnerships often focus on improvements on access to interventions, targeting the right audience with the right interventions and on the quality of the intervention being administered. These, together with the desire to create a strong enabling environment for fundamental and applied research, can provide the backdrop against which synergies are borne. This symposium will examine the contributions and roles of non-traditional donor partners in the fight against malaria through R&D, education, communication, advocacy, training and the surveillance of disease progression.

ACT Consortium @ ASTMH

PROJECT AND ATTENDEE DETAILS

Project Number: 12

Attendees: Dianne Terlouw

Who is presenting? Dianne Terlouw

Where is the presentation? Marriott – Marquis B

What time is the presentation? Thursday, November 15, 2012, 9.30-am

What type of presentation: Oral Presentation

ABSTRACT

ASTMH Abstract Number: 1441

Title: **Assessment of malaria control progress over a two-year period using a continuous 'rolling' Malaria Indicator Survey across age groups in Chikhwawa district, Malawi**

Abstract:
Low cost, district-level monitoring and evaluation (M&E) tools that can provide real-time malaria control progress are urgently needed to guide and optimize control efforts and impact. From May 2011 we have conducted a continuous 'rolling' Malaria Indicator Survey (rMIS) in children aged 6-59 months in 51 villages within Chikhwawa district, Southern Malawi. In 2011, district wide indoor-residual spraying and the use of Rapid DiagnosticTests were added to facility-based ACT case-management and the distribution of insecticide treated bednets. Monthly collection of standard malaria intervention coverage and burden indicators were conducted by a small team of 2 nurses and 2 field workers, sampling all villages twice a year, using PDAs for data capture. Findings from the first year identified substantial temporal and spatial variation in intervention coverage and malaria transmission within the area. The continuous rMIS approach provided real-time feedback on coverage gaps and burden hotspots, suggesting that this type of M&E surveys would become an intervention in itself if could trigger specific local focused control action, and could strengthen our current arsenal of interventions. With the increasing focus on universal coverage and transmission reduction, the rMIS was expanded to include older children and adults in the second year (June 2011-May2012). Preliminary results of this second year rMIS will be presented, with a focus on the added value of including older age groups in MIS surveys and control progress over both years.