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## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACT</td>
<td>Artemisinin-Based Combination Therapy</td>
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<tr>
<td>AIM</td>
<td>Action and Investment to Defeat Malaria 2016-2030</td>
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<td>CHAI</td>
<td>Clinton Health Access Initiative</td>
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<td>CHW</td>
<td>Community Health Workers</td>
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<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<td>DHS</td>
<td>Demographic and Health Surveys</td>
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<tr>
<td>Global Fund</td>
<td>Global Fund to Fight AIDS, Tuberculosis and Malaria</td>
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<td>GTS</td>
<td>Global Technical Strategy for Malaria 2016-2030</td>
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<td>HMIS</td>
<td>Health management information systems</td>
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<td>IDSR</td>
<td>Integrated Disease Surveillance Response</td>
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<tr>
<td>IEC</td>
<td>Information, Education and Communication</td>
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<tr>
<td>IRS</td>
<td>Indoor residual spraying</td>
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<tr>
<td>ITN</td>
<td>Insecticide-treated net</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and evaluation</td>
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<td>MERG</td>
<td>Monitoring and Evaluation Reference Group</td>
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<td>MIS</td>
<td>Malaria Indicator Survey</td>
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<td>PPP</td>
<td>Public-private partnerships</td>
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<td>PMI</td>
<td>US President’s Malaria Initiative</td>
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<td>QAACTS</td>
<td>Quality Assured ACTs</td>
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<td>RBM</td>
<td>Roll Back Malaria</td>
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<td>RDT</td>
<td>Rapid diagnostic testing</td>
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<td>RHIS</td>
<td>Routine health information system</td>
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<td>RMRS</td>
<td>Routine Malaria Reporting System</td>
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<tr>
<td>Swiss TPH</td>
<td>Swiss Tropical &amp; Public Health</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WMR</td>
<td>World Malaria Report</td>
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Participants

Co-Chairs
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Thomas Eisele MEASURE Evaluation/Tulane University
Meeting Objectives
1. Discuss role of public-private partnership in malaria control and elimination
2. Address research needs in countries experiencing increasing case burden
3. Discuss and define strategy for monitoring malaria surveillance
4. Review updates to Global Fund modeling and decision making
5. Address RBM and MERG business issues

Meeting Notes

<table>
<thead>
<tr>
<th>Objective 1: Discuss role of public-private partnership in malaria control and elimination</th>
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<tbody>
<tr>
<td>Expected outputs:</td>
</tr>
<tr>
<td>• M&amp;E guidance on public-private partnerships within malaria endemic countries</td>
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1.1 **Overview of public-private partnerships in DRC**

*Ghuislain Makan Yav, DRC NMCP*

Ghuislain Makan Yav shared the innovative opportunities and benefits of public-private partnerships within DRC. In order to improve the sustainable health and wellbeing of the population, a public-private partnership between the DRC government and TFM was established. The partnership identified six main areas of intervention – one of which focused exclusively on malaria control. The government’s contribution to the partnership included the identification of structures and qualified personnel, training of participating government health staff and the cost exoneration for IRS insecticides.

1.2 **Capacity building efforts in DRC NMCP**

*Jean-Emmanuel Julo-Réminiac, Swiss Tropical and Public Health Institute*

Jean-Emmanuel Julo-Réminiac shared lessons on capacity building within DRC while also sharing the goals of the Swiss TPH. The effort is to strengthen NMCP capacity with a focus on their ability to generate and use information. The project has three main areas of reinforcement: sentinel site surveillance, operational research and finance. A few of the project’s results have been technical guidelines for malaria sentinel surveillance, a list of indicators to monitor at sentinel sites and training of sentinel site staff. Dr. Julo-Réminiac continuously stressed the importance of not doing the work for the country but rather to establish trust between partners and government bodies in order to achieve country autonomy.

1.3 **Malaria M&E activities at the Tenke Fungurume Mine**

*Edouard Swana, International SOS – Tenke Fungurume Mining*

Edouard Swana discussed TFM’s public-private partnership of malaria control efforts. TFM’s program, implemented by International SOS, is responsible for a population of over 200,000 people. The core activities of the program are IRS, bed net distribution and IEC programs. The IRS component of the project has been particularly well received by the population. Parasitemia prevalence dropped from 77 percent in May 2007 to 28 percent as of October 2015. Despite the progress of the program, several uncertainties in finances, population movement, insecticide accessibility, insecticide resistance and copper pricing have led to concerns for the sustainability of the TFM malaria control program.
During the discussion, Dr. Swana proposed that the wider malaria community develop metrics for private market advocacy. He noted that strong financial workforce benefits are necessary to drive private sector investment.

1.4 **Public-private partnership for malaria control in Angola**
*Manzambi Ferreira, Angola NMCP*

Manzambi Ferreira discussed the role of the Angolan NMCP in public-private partnerships. With financial support from USAID/PMI and ExxonMobil Foundation, the main activities of the program involve the reinforcement of institutional and technical capacity of the NMCP, staff training, procurement of ACT’s, operational research, larval source management, IRS and distribution of long lasting insecticidal nets.

1.5 **Improving access to RDTs and ACTs through private sector collaboration**
*Marcel Lama, Defeat Malaria in DRC*

Jean-Emmanuel Julo-Réminiac, on behalf of Marcel Lama, presented on the Defeat Malaria project within DRC that is focused on developing a viable market for QA ACTs in the private sector. While private pharmacies and drug stores make up a substantial percentage of total market share of antimalarial products in DRC, they provide a minimal amount of QA ACTs. Factors such as high factory prices, weak coordination of the supply chain, high taxes and tariffs, inappropriate/weak regulation, poor case management, limited access to RDTs in pharmacies and low demand for QA ACTs all contribute to these issues.

Due to the project’s goal to involve the private sector, there is a large amount of enthusiasm and expectation both within and outside of DRC. While innovative, the project is a high risk and high reward – there is little to no prior experience in a mostly unregulated pharmaceutical system within the country.

1.6 **Strengthening public-private partnership for improved malaria case management with RDT: findings of a mystery clients survey in Kinshasa**
*Paul Mansiangui, University of Kinshasa, DRC*

Paul Mansiangui reviewed the results of a cross-sectional study looking at RDT usage in the private sector. The study found that there was a lack of quality malaria diagnosis in private sector health centers – particularly for microscopy. Often, ACTs and other antimalarial drugs are administered regardless of the positive or negative outcome of the diagnostic test. These results support the need to integrate the private sector into national malaria interventions.
1.7 Discussion on M&E for innovative financing

Participants initially discussed capacity challenges in the private sector regarding RDTs and QA ACTs, especially regarding the ability to read slides for microscopy diagnosis. Local participants pointed out that it is not surprising to find a lab technician who may not have been trained appropriately – a highlight of the capacity concerns. Even well-trained lab technicians have been shown to have difficulties with particular microscopy slides, e.g. low-density slides. Other participants noted, however, that while training and slide quality is imperative, other factors like motivation should not be dismissed. Work done by Malaria Consortium has shown that speaking with providers often showed improved case management. As one guest stated: How can health workers feel motivated to complete often cumbersome data at the health center level without involving unsustainable incentives?

Participants discussed that while TFM’s IRS program has been proven to be effective compared to other interventions in the Fungurume health zone, it is also an extremely expensive activity to maintain. TFM responded that although it is expensive, the company has made it a priority to support IRS due its social responsibility to the local population. Based on their evidence, IRS has shown the most impressive malaria reduction results while being approved by the local population.

Discussion transitioned to the cost of building and maintaining a surveillance site within DRC. Dr. Julo-Réminiac noted that under the Swiss TPH project, the cost was a relatively small amount (approximately $10,000 per health center). He reinforced that the project did not want to alter the trend seeking behavior of the population by creating “better” health centers or labs.

Discussion concluded with participants suggesting the formulation of private sector metrics. In order to have buy-in from the private sector, there should be metrics to show that malaria investment can increase company profitability and productivity. These metrics would be different from the standard epidemiologic indicators and would focus on things like productivity, absenteeism, etc.

**Action Item:** Time-limited working group to develop a short list of indicators for private sector investment and advocacy to the private sector

<table>
<thead>
<tr>
<th>Objective 2: Address research needs in countries experiencing increasing case burden</th>
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<tbody>
<tr>
<td>Expected outputs:</td>
</tr>
<tr>
<td>- M&amp;E challenges and potential solutions in countries experiencing increased cases defined</td>
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<tr>
<td>- Framework of key indicators</td>
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2.1 **PPP Indicators**

*Matthew Lynch, Johns Hopkins University*

Matthew Lynch spoke on the importance of being able to monitor and measure the malaria private sector. In order to have a sustainable private sector program, profitability must be demonstrated. Indicators that show increased worker productivity and increased corporate revenue can speak directly to the “bottom line” of companies that survive based on profitability. Useful measurements to the private sector include employee absentee and long-term employee retention in malaria endemic regions. Coca-Cola’s malaria programs in Angola and Zambia provide evidence that strong malaria programs can improve company profitability.
Although most insecticide-treated nets (ITNs) are still distributed by donors and governments, Dr. Lynch suggests that there may be a growing private market for ITNs that target the preferences of bed net users. In a time where the African middle class continues to grow, some believe this growing private sector market may be the key to a sustainable ITN distribution model.

### 2.2 Increasing case burden in Rwanda

*Abdisalan Noor, KEMRI-Wellcome Trust on behalf of Rwanda NMCP*

Abdisalan Noor briefed MERG participants on the increase in malaria cases in Rwanda. In 2001, Rwanda had fewer than 500,000 cases. Now, there are over 2,000,000. There is some evidence to suggest that a changing age pattern of clinical malaria, with more older children and adults getting infected and improved healthcare access, has increased the number of patients seen in public health facilities and contributed to the appearance of increased case burden. Other factors may also be at play in this burden increase, so further analysis is currently underway.

### 2.3 Increasing case burden in Uganda

*Agaba Bosco, Uganda NMCP*

Agaba Bosco discussed Uganda’s increasing case burden. While malaria is still the leading cause of morbidity and mortality, there has been a decrease of cases across the country. The exception has been 10 districts in the northern region of Uganda, where IRS was withdrawn in November 2014. Evidence from Uganda suggests that this increase is not an epidemic, but a return to local baseline estimates due to the withdrawal of IRS.

### 2.4 Why case numbers sometimes increase: what we need to know when this happens

*Tom Smith, Swiss TPH*

Tom Smith presented on the various interpretations of increasing case numbers. Explanations could be broken down into three main areas: (1) deterioration in the malaria situation, (2) changes in reporting, or (3) improvements in malaria care access or diagnostic sensitivity. Dr. Smith also emphasized the importance of understanding the age-shifting phenomenon on malaria burden.

### 2.5 Results of pilot testing a Spectrum strategic planning module

*Eline Korenromp, Avenir Health*

Eline Korenromp spoke on the Spectrum-Malaria program planning model, which is meant for countries with stable endemic falciparum malaria. The model builds on baseline data and estimates (for burdens, and intervention coverage) at the provincial level, based on WHO/UN indicators and estimates. Some of the strengths of the model are that it is evidence- and consensus-based, includes morbidity outcomes and impacts in adults, captures transmission dynamics and synergies across interventions in the long-term impacts, and is embedded in the UN-recommended OneHealth Tool for health sector-wide planning and costing. On 30+31th May Spectrum-Malaria is being piloted with the DR Congo PNLP and partners, with a view to its use during DRC’s concept note application to the Global Fund early 2017.
2.6 Discussion on emerging measurement needs and working session to develop key indicators

Participants initially discussed possible ramifications of shifting from a donor- to private-based system for bed nets. While a private-based system may provide a more sustainable option for bed net distribution, abandoning the current donor-based distribution network could be detrimental overall. Both systems provide benefits and shifting towards a mixed system may be the direction of the future.

Participants inquired further on increase of case burden in Rwanda. Some participants questioned whether there were differences across regions or if the last mass bed net campaign had affected trends. Dr. Noor suggested that there were unofficial differences across regions and that even the last mass bed net distribution campaign in 2012 was unable to curb the increase. He mentioned that the phenomenon may actually be an example of age-shifting – as mentioned previously in Dr. Smith’s presentation. Age-shift has not been considered but makes sense because risk factors change for older children.

Discussion concluded with Dr. Smith’s checklist of why countries may face increased case burdens. One participant noted that environmental impacts often influence the degree of success or failure of any given intervention. Participants recommended adding supply chain as another factor to the list. Due to the amount of interest this topic generated and the value of such a tool for national malaria control programs, MERG will develop a comprehensive checklist for how to understand increasing caseloads in countries implementing recommended malaria control interventions.

**Action Item:** Expand on the checklist of deconstructing increased case burden

### Objective 3: Discuss and define strategy for monitoring malaria surveillance

<table>
<thead>
<tr>
<th>Expected outputs:</th>
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<tr>
<td>• Create list of potential indicators for M&amp;E of surveillance as an intervention</td>
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#### 3.1 Enhancing surveillance in DRC

*Albert Lukuka, DRC NMCP*

Olivier Kakesa, on behalf of Albert Lukuka, presented on the malaria surveillance structure within DRC. Dr. Kakesa divided the surveillance system into routine data collection system as well as sentinel sites. Recently, the DRC NMCP has begun utilizing a new dashboard to report surveillance data. The dashboard is preferred over Excel in part due to the difficulty of managing data through Excel.

#### 3.2 Developing epidemiologic profiles: the LINK project

*David Schellenberg, London School of Hygiene & Tropical Medicine*

David Schellenberg updated MERG participants on the LINK project, which aims to build and support the use of epidemiological country profiles to provide insights into malaria and enhance evidence-informed decision making for better malaria control in sub-Saharan Africa. The project has already created eight country profiles for DRC, Ethiopia, Ghana, Mali, Malawi, Nigeria, Tanzania and Uganda. The project plans to expand the number of profiles from eight to 18 by 2018. The profiles help to generate malaria risk and intervention coverage down to the district level.
3.3 Short-term Impact of MDA in Zambia

Thomas Eisele, MEASURE Evaluation/Tulane University

Thomas Eisele discussed the short-term impact of MDA through a cluster randomized controlled trial. The trial focused on decreasing transmission to a low level and then maintaining the gains through good surveillance, vector control and access. Two rounds of MDA had substantial impact on malaria infection prevalence, cumulative infection incidence and confirmed case incidence rates, especially in lower transmission areas. In lower transmission areas, infection prevalence in children during the peak transmission season went down to pre-elimination levels of <1 percent. It is important to note that the trial was conducted in an area of very high vector control, strong surveillance and good access to case management, which should be a prerequisite to implementing MDA strategies in similar settings.

3.4 Routine health information systems: architecture, tracking progress and use in malaria surveillance

Michael Humes, USAID PMI

Michael Humes presented PMI’s efforts to create routine health information system (RHIS) profiles. Various routine systems report on malaria, such as the Health Management Information System (HMIS), Integrated Disease Surveillance Response (IDSR) and Routine Malaria Reporting System (RMRS). The architecture and tracking of these systems is often unclear despite their importance. The next steps are to finish and compile country profiles, develop a scoring structure to track progress and emphasize activities that build capacity to use these data. The ultimate goal is to have all PMI priority countries using routine malaria data to inform timely decisions.

3.5 Monitoring surveillance

Inessa Ba, CHAI

Inessa Ba spoke on how a well-functioning surveillance system can be a core intervention for elimination success, and on how surveillance strengthening is required at all points on the path to elimination. The pillars of a strong system comprise of data collection, reporting, response and analysis. A strong national strategic plan forms the basis of a good surveillance system and its costing. Costing is not an isolated activity but part of a process which involves four key areas: policy alignment, value for money, financial management & allocation of existing funds and securing new resources. Costing of a country’s surveillance system is therefore a component of the overall national strategic plan costing.

CHAI has conducted several country surveillance systems assessments across Southern Africa, Southeast Asia, Mesoamerica and Hispaniola. This qualitative and quantitative landscaping compares country systems to the theoretical ideal state through the analysis of existing material, surveillance data and through interviews with malaria program managers, surveillance officers, health facility staff and other key stakeholders. The goal of the review is to identify critical bottlenecks in country surveillance systems and support the NMCPs and other relevant partners in addressing those gaps. CHAI was also involved in high-level landscaping taking a cross-country landscaping approach for the Elimination 8.
3.6 Discussion on emerging measurement needs and working session to develop key indicators

Participants discussed how to monitor improvements in surveillance through routine systems and surveys. A large number of countries are now utilizing DHIS2 as a single unifying monitoring system. Factors such as completeness, data quality, and timeliness are key themes for routine systems that need to be strengthened in order to maximize their usefulness as a complementary data source to household surveys. As transmission rates continue to reduce, HMIS will become increasingly significant in case identification and surveillance needs. Both routine data and survey data are necessary for the present and the future of surveillance. MERG members discussed the idea of tracking partner work related to strengthening routine data to avoid duplication and to harmonize efforts.

*Action Item:* Stakeholders mapping for HMIS to discern which organizations/individuals are working on HMIS related projects

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**Objective 4: Review updates to Global Fund modeling and decision making**


*Ryuichi Komatsu/Estifanos Shargie, Global Fund*

Ryuichi Komatsu and Estifanos Shargie spoke on the new Global Fund Strategy for 2017-2022, the approved allocation methodology and a draft M&E strategy. A brief overview of the new allocation methodology and its development was presented. In sum, the model is based on disease burden and a country’s ability to pay. The model for malaria will be using 2000 baseline rates as a means to avoid penalizing success in countries where rates have decreased. A new M&E framework is being constructed to align with and measure progress on the new Global Fund Strategy 2017-2022.

A brief discussion was held on the Global Fund strategy. In the current framework, the Global Fund seeks progress updates from countries every six months regardless of whether the grant was for $500 million or $5 million. This placed a large reporting burden on countries receiving less funding or those with lower burdens. With the new framework, the Global Fund will differentiate reporting requirements to countries according to the categorization based mainly on the size of investment and disease burden.

The Global Fund understands that concept note development is often a difficult ordeal. There is current work being done to simplify the concept note process and rely on national strategy documents more.

4.2 **Declining burden and difficulties for funding**

*Erin Eckert, USAID PMI and Abdisalan Noor, KEMRI-Wellcome Trust*

Erin Eckert and Abdisalan Noor discussed the use of WHO 2000 data as a baseline of what malaria rates would look like if no interventions were being done. If interventions failed or stopped, some experts believe that malaria rates may return to equilibrium similar to those in 2000. While the use of 2000 data has been addressed by WHO several times, this remains a communication issue in wider malaria and global health circles. MERG will release a “Lubumbashi Statement” explaining use of WHO 2000 data as an action item.

*Action Items:* “Lubumbashi Statement” on use of WHO 2000 data
**Objective 5: Address RBM and MERG business issues**

5.1 New RBM board and implications for MERG and other working groups  
*Matthew Lynch, Johns Hopkins University*

Matt Lynch updated participants on the RBM restructuring. While the RBM partnership has been hugely successful, the new push to eradication required reorganization. The previous system was deemed too slow, expensive and limited in its capacity to mobilize. The reorganization seeks to build more resources and enable multisector support of country level stakeholders that contribute most to sustainable malaria efforts.

A new RBM board has recently been elected and held its first conference call earlier this year. The RBM secretariat has been dissolved and management team will no longer be housed under WHO. Under the new structure, there will be a new executive board, malaria council and management team. The new executive board will largely be focused on resource mobilization and galvanizing political and business will. The malaria council will meet twice a year with the purpose of goal setting. The management team will be made up of three managers of three partner committees. The partner committees, previously working groups, will focus on advocacy, resource mobilization and country support.

Despite the structural changes, Dr. Lynch emphasized that all partners and donors remain within RBM. Because the technical working groups have worked independently in the past, this restructuring should not directly affect MERG operations.

One question was asked regarding the fate of the sub regional networks. Before the restructuring, these networks allowed NMCPs to provide input to RBM while providing a focal point of communication between NMCPs. Dr. Lynch believes that the networks will be incorporated into the country support management team.

A final question regarding the time and date of next Indicators and Task Force Meeting was brought up. Fred Arnold and Lia Florey will aim to have the meeting in July 2016 in Baltimore, Maryland. This is noted as an action item.

*Action Item: Indicators and Data Source Task Force Meeting in Baltimore, Maryland*

**Action Items**

<table>
<thead>
<tr>
<th>Work Areas</th>
<th>Responsible parties</th>
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<tbody>
<tr>
<td>Working group to discuss private sector advocacy indicators</td>
<td>Matthew Lynch and Edouard Swana</td>
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<tr>
<td>Checklist of deconstructing increased case burden</td>
<td>Tom Smith, Erin Eckert, Abdisalan Noor and Thom Eisele</td>
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<tr>
<td>Stakeholders mapping for HMIS</td>
<td>Michael Paula</td>
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<tr>
<td>“Lubumbashi Statement” on use of WHO 2000 data</td>
<td>Abdisalan Noor</td>
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<td>-----------------------------------------------</td>
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<tr>
<td>Indicators and Data Source Task Force Meeting</td>
<td>Fred Arnold and Lia Florey</td>
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Participants agreed that while MERG will continue to work toward its goals and planned projects, the next plenary meeting will take place in early 2017. The co-chairs and secretariat will coordinate regular communication with MERG members to determine the best time and location for a next meeting.