

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

Indicators for Use in PMI - This table includes the full set of indicators to be used for monitoring and evaluation of PMI. To adapt the table for a country, please delete full rows associated with indicators that will *not* be for PMI purposes in that country. When selecting indicators it will be useful to consider not only how information will be collected but also how the information will be used to improve program activities, who would be interested in this information and what decisions could be made based on this information. M&E advisors will work with teams to select indicators and to adapt the table. The four right-hand columns now offer suggested data sources, dates for data collection, frequency of reporting and designated parties responsible, but these should be adapted according to country-specific M&E plans and timelines.

USAID Malaria Indicators - Eleven of these malaria program indicators (designated as coming from PMP) are recommended to come from the Mission's Performance Monitoring Plan (PMP). Six of these PMP indicators (designated as coming from PMP & OP) will be included as OP indicators in FY 08 for reporting within the FACTS system.

| Evaluation Indicators – Impact | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible Party |
|--------------------------------|---|---|---|--|-------------------------------|-------------------|
| Impact 1 | All-cause under-five mortality rate | All-cause child mortality rate, ages 0–4 years, expressed as deaths per 1000 live births, or ${}_5q_0$ | DHS survey, MICS survey or census | <i>Give dates for planned surveys</i> | <i>Baseline and follow-up</i> | |
| Impact 2 | Proportion of deaths attributed to malaria among children under five nationally | Number of deaths to children under five attributed to malaria through verbal autopsy for the period three years prior to survey/Deaths to children under five reported for the period three years before survey | <i>Nationally representative VA survey as part of surveys large enough to estimate ${}_5q_0$</i> | <i>Give dates for planned VA surveys</i> | <i>Baseline, follow-up</i> | |
| Impact 3 | Proportion of deaths attributed to malaria among children under five in a demographic surveillance site <i>In a case where this indicator is selected, we suggest that a full MIS be implemented in DSS populations.</i> | Number of deaths to children under five attributed to malaria through verbal autopsy according to DSS protocol/Deaths to children under five within a demographic surveillance site | <i>DSS</i> | <i>Discuss with DSS</i> | <i>Discuss with DSS</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Evaluation Indicators – Impact | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|--|--|---|--|--|---|-------------------|
| Impact 4 | Proportion of children 6–59 months old with moderate or severe anemia | Children aged 6-59 months with moderate anemia (hemoglobin 7.0 – 9.9 g/dl) or severe anemia (hemoglobin < 7.0 g/dl)/Children aged 6-59 months who had hemoglobin measurements from nationally representative survey | <i>DHS survey, MIS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |
| Impact 5 | Proportion of children under five with malaria infection | Children under five with malaria infection detected by microscopy/Children under five tested for parasitemia from nationally representative survey | <i>MIS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |
| Evaluation Indicators – Outcome | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
| Outcome 1 | Proportion of households with at least one ITN | Number of households that own at least one ITN/Number of households surveyed | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |
| Outcome 2 Will come from PMP | Proportion of households with a pregnant woman or children under 5 with at least one ITN | Number of households with a pregnant woman or child < 5 that own at least one ITN/Number of households with a pregnant woman or child <5 surveyed | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | MISSION |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Evaluation Indicators – Outcome | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|--|--|---|--|--|---|-------------------|
| Outcome 3 | Proportion of population of all ages who slept under an ITN the previous night | Number of household residents and visitors who slept under an ITN the previous night/Total number of residents and visitors who slept in surveyed households the previous night | <i>DHS survey, MIS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |
| Outcome 4 Will come from PMP | Proportion of children under five years old who slept under an ITN the previous night | Number of children under 5 years old who slept under an ITN the previous night/Total number of children under 5 years who slept in surveyed households the previous night | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | MISSION |
| Outcome 5 | Proportion of pregnant women who slept under an ITN the previous night | Number of pregnant women who slept under an ITN the previous night/Total number of pregnant women who slept in surveyed households the previous night | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |
| Outcome 6 | Proportion of households reporting that their compound/household was sprayed with a residual insecticide in the last 12 months | Number of households that report that their house/compound/unit was sprayed with a residual insecticide in the last 12 months/ All households in the survey area | <i>DHS survey, MIS survey,</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Evaluation Indicators – Outcome | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|---------------------------------|--|--|--|--|---|-------------------|
| Outcome 7 | Proportion of targeted houses adequately sprayed with a residual insecticide in the last 12 months <i>(adequately to be defined according to MERG criteria)</i> | Number of occupied houses in the IRS program target area adequately sprayed with a residual insecticide in the last 12 months/Total number of occupied houses in target area | <i>Activity reports</i> | On-going | Annually | |
| Outcome 8 | Proportion of children under 5 who slept under an ITN the previous night or in a house sprayed with IRS in the last 6 months | Number of children under 5 years old who spent the previous night under an ITN or in a house that was sprayed with IRS in the last 6 months/Total number of children under 5 years who slept in surveyed households the previous night | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |
| Outcome 9 | Proportion of pregnant women who slept under an ITN the previous night or in a house sprayed with IRS in the last 6 months | Number of pregnant women who spent the previous night under an ITN or in a house that was sprayed with IRS in the last 6 months/Total number of pregnant women who slept in surveyed households the previous night | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Evaluation Indicators – Outcome | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|---|---|--|--|--|---|-------------------|
| Outcome 10 Will come from PMP | Proportion of women who have received two or more doses of IPTp during their last pregnancy in the last two years | Number of women who received two or more doses of recommended antimalarial drug treatment as IPTp during their last pregnancy that led to a live birth within the last two years/Total number of women surveyed who had a live birth in the last two years | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | MISSION |
| Outcome 11 Will come from PMP | Proportion of children under five years old with fever in the last two weeks who received treatment with ACTs within 24 hours of onset of fever | Number of children under five who had a fever in the two weeks prior to a survey who received ACTs for treatment within 24 hours of onset of fever/ Total number of children under five who had a fever reported for the two weeks prior to a survey | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | MISSION |
| Outcome 12 | Proportion of children under five years old with fever in the last two weeks who received treatment with an antimalarial according to national policy within 24 hours of onset of fever | Number of children under five who had a fever in the two weeks prior to a survey who received an antimalarial according to national policy at the time of survey for treatment within 24 hours of onset of fever/ Total number of children under five who had a fever reported for the two weeks prior to a survey | <i>DHS survey, MIS survey, MICS survey</i> | <i>Give dates for planned coverage surveys</i> | <i>Baseline, (midpoint) and follow-up</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Sentinel Site Indicators – Outpatients | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|---|--|--|-----------------------|----------------------------------|-------------------------------|--------------------------|
| Sentinel Site 1 | Number of outpatients | Total number of outpatients, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 2 | Number of clinical outpatient cases of malaria | Number of clinical outpatient cases of malaria, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 3 | Number of blood slides examined for malaria from outpatients | Total number of blood slides examined for malaria from outpatients, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 4 | Number of slide-confirmed outpatient cases of malaria | Number of slide-confirmed outpatient cases of malaria, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 5 | Number of RDTs examined for malaria from outpatients | Total number of RDTs, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 6 | Number of RDT-confirmed outpatient cases of malaria | Number of RDT – confirmed outpatient cases of malaria, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site Indicators – Inpatients | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
| Sentinel Site 7 | Number of inpatients | Total number of inpatients, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 8 | Number of clinical inpatient cases of malaria | Number of clinical inpatient cases of malaria, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 9 | Number of blood slides examined for malaria from inpatients | Total number of blood slides examined for malaria from inpatients, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Sentinel Site Indicators – Inpatients | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|--|---|---|-----------------------|----------------------------------|-------------------------------|--------------------------|
| Sentinel Site 10 | Number of slide-confirmed inpatient cases of malaria | Number of slide-confirmed inpatient cases of malaria, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 11 | Total number of RDTs examined for malaria from inpatients | Total number of RDTs examined for malaria from inpatients, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 12 | Number of RDT-confirmed inpatient cases of malaria | Number of RDT – confirmed inpatient cases of malaria, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 13 | Number of inpatient anemia cases <5 | Number of anemia cases among inpatients <5 | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 14 | Number of inpatient deaths | Number of inpatient deaths, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 15 | Number of inpatient slide-confirmed malaria deaths | Number of inpatient slide-confirmed malaria deaths, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 16 | Number of inpatient RDT confirmed malaria deaths | Number of inpatient RDT confirmed malaria deaths, for <5 and 5+ separately | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site Indicators – IPTp | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
| Sentinel Site 17 | Number of pregnant women who received IPTp-1 | Number of pregnant women who received IPTp-1 | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 18 | Number of pregnant women who received IPTp-2 | Number of pregnant women who received IPTp-2 | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 19 | Total number of pregnant women who attended first ANC visit | Total number of pregnant women who attended first ANC visit | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Sentinel Site Indicators – Treatment | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|---|---|---|-------------------------|---------------------------|------------------------|-------------------|
| Sentinel Site 20 | Number of antimalarial treatments | Number of antimalarial treatments prescribed by drug, for <5 and 5+ | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 21 | Number of days out of stock in the last month for each antimalarial | Number of days out of stock in the last month for each antimalarial | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Sentinel Site 22 | Number of children <5 receiving a blood transfusion | Number of children <5 receiving a blood transfusion | <i>Sentinel sites</i> | <i>On-going</i> | <i>Monthly</i> | |
| Monitoring Indicators - Process and Output | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
| Monitoring ITN 1 Will come from PMP, same as OP | Number of ITNs purchased with USG funds | Number of ITNs purchased with USG funds | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | MISSION |
| Monitoring ITN 2 | Number of ITNs distributed or sold nationally | Number of ITNs distributed or sold nationally | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring ITN 3 Will come from PMP, same as OP | Number of ITNs distributed or sold nationally with USG funds | Number of ITNs distributed or sold nationally with USG funds | | | | MISSION |
| Monitoring ITN 4 | BCC/IEC activities to promote ITN use | <i>Country team should develop a useful indicator to monitor community health education or information activities that specifically promote sleeping under ITNs</i> | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring ITN 5 | Number of nets retreated | Number of bednets retreated | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring IRS 1 Will come from PMP, same as OP | Number of people trained to deliver IRS | Number of people who have been trained with USG funds to deliver IRS according to protocol | <i>Activity reports</i> | <i>On-going</i> | <i>Annually</i> | MISSION |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Monitoring Indicators - Process and Output | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|---|---|--|-------------------------|---------------------------|-------------------------|-------------------|
| Monitoring IRS 2 Will come from PMP, same as OP | Number of houses sprayed with IRS with USG funds | Number of occupied houses in the IRS program target area sprayed with a residual insecticide in the most recent round with USG funds | <i>Activity reports</i> | <i>On-going</i> | <i>Annually</i> | MISSION |
| Monitoring IRS 3 | Proportion of targeted houses sprayed with a residual insecticide | Number of occupied houses in the IRS program target area sprayed with a residual insecticide/ Total number of occupied houses in the IRS program target area | <i>Activity reports</i> | <i>Each spray round</i> | <i>Each spray round</i> | |
| Monitoring IRS 4 | BCC/IEC activities to promote IRS participation | Country team should develop a useful indicator to monitor community health education or information activities that specifically promote IRS participation | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring IPTp 1 Will come from PMP | Number of SP tablets purchased with USG funds | Number of SP tablets purchased with USG funds | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | MISSION |
| Monitoring IPTp 2 | Number of pregnant women receiving IPTp 2 | Number of women who received second dose of recommended antimalarial drug treatment as IPTp | <i>HMIS or other</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring IPTp 3 | Number of ANC health workers trained in IPTp | Number of ANC health workers trained with USG funds in intermittent prevention of malaria in pregnancy | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Monitoring Indicators - Process and Output | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible Party |
|--|---|--|-------------------------|---------------------------|------------------------|-------------------|
| Monitoring IPTp 4 | BCC/IEC activities to promote IPTp | <i>Country team should develop a useful indicator to monitor community health education or information activities that specifically promote antenatal care use</i> | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring IPTp 5 | BCC/IEC activities to promote antenatal care use | <i>Country team should develop a useful indicator to monitor community health education or information activities that specifically promote antenatal care use</i> | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring ACT 1 | Number of ACT treatments purchased with USG funds Will come from PMP, same as OP | Number of ACT treatments purchased with USG funds | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | MISSION |
| Monitoring ACT 2 | Number of treatment courses for severe malaria purchased | Number of treatments w/ drugs for severe malaria purchased with USG funds | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring ACT 3 | Proportion of government health facilities with ACTs available for treatment of uncomplicated malaria | Number of health facilities with no reported stockouts of nationally recommended ACTs lasting one week or longer at any time during the past three months/total number of government health facilities | <i>Facility records</i> | <i>Quarterly</i> | <i>Annually</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

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|--|---|---|-------------------------|---------------------------|------------------------|-------------------|
| Monitoring ACT 4 | Number of children under five receiving ACTs | Number of children under five years old who received ACTs for treatment of uncomplicated malaria | <i>HMIS or other</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring ACT 5 | Number of people aged 5+ receiving ACTs | Number of people aged 5 or over who received ACTs for treatment of uncomplicated malaria | <i>HMIS or other</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring ACT 6 | Number of health workers trained in case management with ACTs | Number of health workers trained with USG funds in case management with ACTs | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring Treatment 1 | BCC/IEC activities to promote prompt care seeking for fever and recognition of severe malaria by caregivers | <i>Country team should develop a useful indicator to monitor community health education or information activities that specifically promote prompt care seeking for fever and severe malaria for under 5s</i> | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring Treatment 2 | Number of health workers trained in home-based management of fever | Number of health workers trained with USG funds in home-based management of fever | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |

Monitoring and Evaluation Indicators to be Used within The President's Malaria Initiative

19 October 2007

| Monitoring Indicators - Process and Output | | Definition | Data source | Dates for data collection | Frequency of reporting | Responsible party |
|--|--|---|-------------------------|---------------------------|------------------------|-------------------|
| Monitoring Treatment 3 | Proportion of planned malaria-related supervisions conducted | Number of planned malaria case management or prevention supervision visits that were conducted in a quarter/Number of planned malaria case management or prevention supervision visits for that quarter | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring Diagnosis 1 | Number of RDTs purchased | Number of RDTs purchased with USG funds | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring Diagnosis 2 | Proportion of government mid-level health centers capable of laboratory diagnosis of malaria | Number of government mid-level health centers with trained and equipped staff to perform laboratory diagnosis of malaria/Total number of government mid-level health centers | <i>Facility survey</i> | <i>Annually</i> | <i>Annually</i> | |
| Monitoring Diagnosis 3 | Number of health workers trained in laboratory diagnostics | Number of health workers trained with USG funds in diagnosis with RDTs or microscopy | <i>Activity reports</i> | <i>Quarterly</i> | <i>Annually</i> | |
| Monitoring Diagnosis 4 | Proportion of malaria cases confirmed with laboratory diagnostics | Number of malaria cases to all ages confirmed with RDTs or microscopy/Total number of malaria cases to all ages | <i>HMIS or other</i> | <i>Annually</i> | <i>Annually</i> | |
| Monitoring Training 1 | Number of people (medical personnel, health workers, community workers, etc.) trained with USG funds in malaria treatment or prevention Will come from PMP, same as OP | Sum of indicators: Monitoring IPTp 3, Monitoring ACT 6, Monitoring Treatment 2 and Monitoring Diagnosis 3 | | | | MISSION |