#### **Malaria Policy Advisory Committee Meeting**

2–4 October 2019, Geneva, Switzerland Background document for Session 5



# Report of the second meeting of the Malaria Elimination Certification Panel

14–16 May 2019 World Health Organization, Geneva, Switzerland

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# **ABBREVIATIONS**

Global Malaria Programme GMP

MEAT Malaria Elimination Assessment Tool

**MECP** Malaria Elimination Certification Panel

MOH ministry of health

Malaria Policy Advisory Committee **MPAC** 

WHO World Health Organization

#### **EXECUTIVE SUMMARY**

On 14–16 May 2019, the World Health Organization (WHO) convened the Malaria Elimination Certification Panel (MECP) for its second meeting to discuss potential certifications of malaria elimination to two countries, Argentina and Algeria; to review and improve the tools that have been developed to assist countries in preparing for certification; to review and improve the standard operating procedures of precertification and certification missions and to review and improve the expected certification plan for 2019–2021.

#### Conclusions and recommendations

- The MECP concludes that both Argentina and Algeria have met the current WHO criteria and thus recommends they should be certified malaria-free.
- The MECP agrees that the WHO criteria for elimination of the past three consecutive years with zero indigenous cases is clarified to mean the past 36 months with zero indigenous cases.
- It is essential for countries approaching elimination to investigate and document all malaria cases, including a thorough attempt to establish the location where the infection was contracted. This investigation and documentation should include all cases, whether classified as imported, introduced, indigenous etc. during the 3 years prior to expected certification.
- For countries or areas approaching elimination or working to prevent re-establishment of transmission, an adequate surveillance system should ensure that all cases that meet the suspected case definition are tested for malaria, positive cases are notified and treated, and appropriate response activities are implemented promptly. To be able to monitor the performance of the surveillance system, we recommend that registers or electronic databases for inpatient admissions and outpatient visits should include critical risk factor information that are included in the suspect case definition.
- The WHO's Malaria Elimination Assessment Tool specifies requirements for certification. Countries are advised to use this tool to monitor their progress towards elimination and assess their readiness for certification.
- A template was developed for the national elimination report required by WHO at the start
  of the certification process. This template was developed to ensure that critical data and
  information needed for a decision on certification is presented in a systematic way to the
  MECP. Countries are advised to use this template, although flexibility in the presentation of
  data is permitted.
- WHO-led precertification missions should follow a standardized format and methodology, aiming to prepare countries for a final certification mission from the MECP. The results of precertification missions should be shared with the MECP.
- The concept of regional certification means certification is applied to a group of countries in a defined geographic area or WHO region. No conclusion was reached at this meeting with respect to processes for regional certification, and further discussions will be held at future meetings.
- Countries with a plan to request WHO certification of malaria elimination are strongly
  encouraged to discuss with WHO to begin preparations well in advance so that a certification
  process could be successfully completed and will take into account the complexity of
  epidemiological situation in each country.

#### **BACKGROUND**

The Malaria Elimination Certification Panel (MECP), established by WHO in 2017, is charged with recommending to the WHO Director-General, through the WHO Malaria Policy Advisory Committee and the Global Malaria Programme (GMP), whether malaria elimination can be certified in applicant countries based on WHO criteria. During the first MECP meeting held from 13-14 December 2017, the members reviewed and made recommendations for improvements to two draft guides on certification: one for countries applying for certification, and one for the MECP panel conducting the certification evaluation. It was suggested that the guides be piloted during the certification processes for the first two countries to be certified, and be reviewed again by the MECP before their publishing.

After the establishment of the MECP, two countries, Paraguay and Uzbekistan, were certified in 2018. Additionally, certification evaluation missions were completed in two applicant countries, Argentina and Algeria, in March and April 2019, respectively. More and more countries are making progress towards elimination and achieving important milestones. The need to support and prepare these countries for certification is increasing.

During the three-day meeting, 11 members, two ad hoc MECP members and the WHO Secretariat discussed the issues raised from recent certifications, the potential certifications of malaria elimination in Argentina and Algeria, and the tools that have been developed to assist countries to prepare for certification and to assist the MECP and WHO in the certification evaluation. (See Annex 1 for the meeting agenda and Annex 2 for a list of participants.)

#### **DECLARATION OF INTERESTS**

All MECP and ad hoc members participating in the meeting submitted a declaration of interests that was assessed by the Elimination Unit, GMP at WHO. Based on the assessment, Dr Keith Carter was partially recused from the discussion of certification to Argentina and was not part of the decisionmaking in the final recommendation. Professor Daouda Ndiaye was partially recused from the discussion of certification to Algeria and was not part of the decision-making in the final recommendation on certification to Algeria.

#### **OBJECTIVES**

The purpose of the second annual MECP meeting was to discuss the potential certification of malaria elimination in Argentina and Algeria, and to review and improve the tools for WHO certification of malaria elimination.

# Specific objectives

- (1) Discuss the potential certifications of malaria elimination in Argentina and Algeria.
- (2) Improve the tools for WHO certification of malaria elimination:
  - Malaria Elimination Assessment Tool (MEAT), including requirements for certification;
  - national elimination report template; and
  - standard operating procedures for WHO precertification missions and final certification evaluation missions, and template of mission report.

(3) Review and comment on the proposed certification work plan for 2019–2020:

- draft work plan for potential certification in 2020 -2021;
- regional certification of malaria elimination in the WHO European Region.

#### PROCESS AND PRESENTATIONS

# **Background documents**

In preparation for the meeting, Dr Allan Schapira and Professor Mahamadou A. Thera prepared a report based on their findings from the certification evaluation mission to Algeria from 25 March to 5 April 2019. After the certification evaluation mission, Algeria conducted a series of activities to improve its system based on recommendations made by the two team members. Algeria submitted additional documents that described all activities conducted after the certification mission. The two team members, after reviewing those documents, prepared a report to supplement their certification mission report.

Professor Rossitza Mintcheva and Dr Martha L. Quiñones prepared a report based on their findings and conclusions from the certification evaluation mission to Argentina on 18 March–29 March 2019.

The WHO Secretariat prepared the MEAT with specified requirements for certification, a template for the national elimination report, the standard operating procedures for WHO precertification missions and MECP certification evaluation missions, and a certification mission report template.

# **Meeting opening**

The second MECP meeting opened with a welcome from Dr Pascal Ringwald, coordinator of WHO GMP, on behalf of Dr Pedro Alonso.

Dr Ringwald thanked the members of the MECP for their commitment and contribution to this important work. Certification of malaria elimination is a mandate given to WHO by Member States that officially recognizes a significant public health achievement made by countries and generates momentum to the global community in the fight against malaria.

Globally, progress on malaria has stalled in recent years, Ringwald said, the world is not on track to reach its 2030 targets regarding reduction of morbidity and mortality in the Global Technical Strategy. Meanwhile, more countries are progressing towards elimination.

To continue recognizing and celebrating the important achievement of elimination is not only important to the countries that have achieved elimination but doing so provides inspiration and motivation to other countries and sets an example for countries that are endemic for malaria.

Dr Kim Lindblade joined Dr Ringwald in welcoming the MECP members and thanked them for their efforts in the WHO certification process. She said that as more countries move toward the goal of elimination in the next few years, requests for certification will increase.

### **Session 1: Setting the scene**

Dr Li Xiao Hong reviewed the meeting agenda, meeting objectives and expected outcome. No objections were made to the proposed agenda.

During his presentation, Dr Jose Najera shared his thoughts on the certification of malaria elimination. He reviewed malaria surveillance in several countries, including Sri Lanka, Paraguay, Uzbekistan, Argentina and others; the use of indicators of the annual blood examination rate and the slide positive rate; and the combined use of active and passive case detection in different countries. That these countries are certified malaria-free and have remained so indicates that malaria surveillance in these countries is adequate.

Nevertheless, Dr Najera said it appeared that the interpretation of the adequacy of surveillance among these countries varied significantly, perhaps due to differences in their social and ecological backgrounds. In general, there is room to improve surveillance, even in countries that are close to or have achieved elimination. Surveillance could be enhanced when the search for cases is guided by a clear understanding of where, when and why malaria cases might occur, rather than by simply testing more blood samples. Surveillance could also be improved when epidemiological analysis is conducted at the periphery level and attention is paid to any cases clustered in time and space.

The definition of "suspected malaria" is a dynamic concept that may change over time as transmission is reduced. Cases might be missed if fever is used as the only indicator. To assess the risk of re-establishment of malaria transmission, factors that should be considered include historical foci where transmission had been active and approaches that had been used to clear these foci; whether ecological changes, including land use, favour vector proliferation or the opposite; and the pattern of migrant movement. To prevent re-establishment of endemicity, response to imported cases is critical.

Dr Lindblade reviewed the two criteria for certification of malaria elimination and emphasized that the assessment of adequacy of the surveillance system is critical to both criteria. A number of attributes should be considered when assessing a surveillance system, but some, such as data quality, sensitivity and timeliness, are more important for elimination. Ideally, a passive surveillance system should detect 100% of cases that have occurred. But when several elements are taken into account – including the probability that clinical symptoms are presented, the probability that patients will seek health care, the probability that a suspected case is tested, the sensitivity of a diagnostic test, and the probability of reporting positive cases – the sensitivity will not reach 100%. In the absence of cases, methods that are used to assess sensitivity cannot be applied. Assessment of the sensitivity of surveillance should focus on whether all suspected cases are tested for malaria, and whether all positive cases are reported.

Dr Lindblade also presented the GMP's concerns about the use of the annual blood examination rate (ABER) in elimination settings as an indicator of vigilance. ABER is defined as the number of people receiving a parasitological test for malaria per unit population per year. The denominator of the ABER, i.e. the population at risk, is difficult to define when transmission is very low. She noted that what should be measured is the probability that a surveillance system would detect a case should it occur. She suggested that the freedom from infection (FFI) statistical methods, which were developed to quantify the likelihood that disease would be detected if it existed, might be useful to guide countries on where surveillance improvements are required. Issues on introduced cases and others were presented for the panel to consider and discuss.

# Conclusions from the two presentations:

- 1. Measurement of sensitivity and adequacy of surveillance
  - → ABER as an indicator to assess the adequacy of surveillance

ABER was an indicator first introduced in the Global Malaria Eradication Programme when routine passive surveillance systems were considered inadequate. The use of ABER in elimination was

proposed by the Expert Committee of malaria in its 8th report<sup>1</sup>, as requested by national programmes, who needed field applicable criteria to prove an adequate search for malaria cases. The expert committee proposed an ABER of at least 10% of the population covered by surveillance as a minimal level of testing for a surveillance system, but 10% ABER threshold could not be justified from an epidemiological perspective. The denominator of ABER, population at risk, is difficult to calculate in elimination settings. ABER doesn't provide information on whether the blood samples tested for malaria are truly from the population of concern. High rates of blood examination can be achieved through active case detection of easily accessible populations, which is not the purpose of blood sample testing. When transmission becomes focal, it could be highly inefficient to maintain a high blood examination rate. In this regard, countries are advised not to use ABER as a key indicator of adequate surveillance but to focus on ensuring that all suspected cases are tested, reported and responded to.

→ Slide positivity rate (SPR) as an indicator of the adequacy of surveillance

The SPR, defined as the proportion of blood smears found to be positive for Plasmodium among all blood smears examined, could differ significantly between active and passive surveillance. Seasonality, the population targeted, health care-seeking behaviour and suspected case definition will also change the SPR. The use of only the SPR to understand the specificity of surveillance is inadequate.

Conclusion: There are yet no fully satisfactory methods or metrics for measuring surveillance sensitivity in elimination settings. Countries are advised to focus on whether all suspected cases are tested for malaria, and whether all positive cases are reported. Practically, surveillance can be improved when blood sample testing is guided by a clear understanding on where, when and why malaria cases might occur, rather than by simply testing more blood samples.

#### 2. Introduced cases

An introduced case is contracted locally, with strong epidemiological evidence linking it directly to a known imported case (first-generation local transmission).

- → There is limited practical value in classifying cases as introduced in areas of known transmission.
- → When countries are very close to elimination and are about to meet the criteria for certification, identifying introduced cases is important. Case classification should be reviewed and rigorously verified to ensure the evidence provided for case classification is adequate.
- ightarrow In principle, there should be an epidemiological link between an introduced case and a known imported case.
- → Malaria programmes should make all possible efforts to trace the source of infection of introduced cases.
- 3. WHO has stated that countries are eligible to request malaria-free certification from WHO when they have reached zero indigenous malaria cases for at least the past three consecutive years. Recognizing that the last indigenous case might occur in any given month of the year and that it takes time to complete a certification process, the MECP has clarified that three years is equivalent to 36 months, rather than three calendar years.
- 4. The MECP and WHO should follow up with countries that are certified malaria-free to validate the usefulness of the recommendations made by the MECP, to inform future practices in the prevention of re-establishment of transmission.

<sup>1</sup> Expert Committee on Malaria, eighth report. www.who.int/iris/handle/10665/40477

#### Review the terms of reference of MECP and the certification process

The MECP is entrusted with making a recommendation to WHO on whether an applicant country should be certified malaria-free based on current criteria and with providing technical advice on the criteria and procedures for certification, when needed. The MECP also recommends to WHO whether decertification is warranted in a certified country should the country meet the minimum criterion of re-establishment of transmission. The use of different documents generated in a certification process was clarified. At the end of a certification evaluation mission, mission members will provide a briefing to the Ministry of Health (MOH) that includes their conclusions about the mission and their recommendations. The conclusions and recommendations made by mission members during their briefing to MOH only represent the views of the certification mission members. They do not represent the views of the MECP or WHO. The certification evaluation report, developed by mission members, is to provide details on the observations and findings of the certification mission to all members in the MECP and WHO Secretariat. The broader use of this evaluation report will be further explored by the GMP in consultation with WHO regional office and others.

#### Recommendation

The MECP recommends that the WHO Secretariat further detail the process of decertifying countries, including the process for collecting annual reports on malaria cases from certified countries, assessing the quality of the surveillance data, investigating reported cases and evaluating whether the country has met the criteria for re-establishment of transmission.

# **Session 2: Certification of malaria elimination in Argentina**

Dr Mintcheva, team leader of the Argentina certification mission (18-29 March 2019), briefed the MECP on the activities conducted by the evaluation team, their observations and findings. The team made visits to key institutions and organizations in the autonomous city of Buenos Aires (CABA) and the provinces of Buenos Aires, Salta and Jujuy. The certification mission concluded that Argentina has met the two criteria of WHO certification and recommended that Argentina be certified malaria-free.

Following the briefing, other MECP members raised concerns or queries on several issues, which were clarified and addressed by the mission members and the WHO Secretariat. The concerns and queries included: cross-border collaboration; case classification methods and verification; microscopy proficiency testing and sustainability of quality control for malaria diagnosis; the rationale and implementation of reactive vector control; surveillance in the armed forces and police; and health system integration and the quality of primary health care. The panel noted that cross-border collaboration between Argentina and Bolivia was not limited to information-sharing but included active participation of Argentinian MOH staff in conducting indoor residual spraying and active case detection in collaboration with the Bolivian health team on the Bolivian side of the border. The crossborder collaboration has been successful and sustainable; such experiences should be shared with countries experiencing border malaria issues. Argentina has undertaken an extensive integration effort, moving from a vertical program overseen by the national MOH to an integrated programme within the provincial health and surveillance systems.

After the discussion, the MECP agreed with the conclusions of the certification mission members – that mosquito-borne local malaria transmission in Argentina has been interrupted throughout the country and that the existing health system should be able to prevent re-establishment of transmission.

The MECP unanimously recommended that Argentina should be certified as malaria-free.

# Session 3: Certification of malaria elimination in Algeria

Dr Schapira, team leader of the Algeria certification mission (25 March – 5 April 2019), briefed the MECP on the activities conducted by members of the certification mission team, their observations and findings. The team reviewed a number of supporting documents, including national elimination report before their visit to the country. They visited the MOH and the two national institutes involved in malaria elimination: the National Institute of Public Health (INSP) and the Institut Pasteur of Algeria (IPA). Three wilayas (provinces) were selected for field visits: Ouargla, Adrar and Tamanrasset.

At the end of the certification mission, the team concluded that local malaria transmission had been interrupted in Algeria for at least the past three consecutive years. The certification mission identified some weaknesses of the health system and recommended that the MOH of Algeria make immediate improvements of the vigilance of health care providers in relation to suspecting malaria and the capacity and quality of case investigation in the vulnerable wilayas. The MOH of Algeria submitted a supplementary report to the mission members (copied to WHO secretariat) by email on 8 May. This report detailed the actions taken by the Algerian MOH in line with the recommendations of the mission.

Dr Schapira and Dr Thera, after reviewing the supplementary report concluded that the immediate, vigorous and technically appropriate actions taken by the MOH meant that the health system would from then on be able to prevent re-establishment of transmission.

Following the briefing, the MECP raised concerns about: case classification, such as whether reported introduced and imported cases were correctly classified; programme management; and the sustainability of malaria-free status in a large country with major cross-border population movements; the quality of vector control operation; the correctness of suspected case definition; the use of Rapid Diagnosis Tests; structures at the subnational level that are responsible for active case detection; for all of these, the situation and the developments in Algeria were clarified by the team members and the WHO Secretariat.

The panel concluded that Algeria has met the certification criteria in spite of facing a very challenging situation, due to its long, porous borders with neighbouring countries that are endemic for malaria and the presence of competent vectors.

The MECP unanimously recommended that Algeria should be certified malaria-free. The MECP recommended that the WHO Secretariat should follow up closely with the national malaria program in Algeria to ensure the weaknesses identified during the certification mission are rectified. A mission team from the WHO Secretariat could be sent to the country to confirm the implementation of the recommendations made by the panel.

### Session 4: Recommendations on the tools developed for certification

#### Malaria elimination assessment tool with specified requirements for certification

The MEAT was developed to assist countries to operationalize the WHO *Framework for malaria elimination*, including the certification criteria. This tool is developed to assist malaria-eliminating countries in monitoring achievement of elimination milestones and assess the readiness for certification. This tool, together with the template of the national elimination report, will be included in the guide for countries preparing for WHO certification of malaria elimination.

The overall comments from MECP members on this tool were positive. Members recognized the practical needs of malaria-eliminating countries in preparing for certification and appreciated the efforts that have been made to develop this tool with specific requirements for certification of malaria elimination. The MECP said the critical requirements for certification are well-captured in the tool and the stringency of different elements required for certification are reasonably differentiated. However, the panel advised that the requirements for certification specified in this tool should be used as a guide by countries and do not indicate decisive rules for certification. Flexibility may be allowed when the requirements are applied to different countries, recognizing that certification of malaria elimination is a complex exercise.

#### Template for the national elimination report

The national elimination report is a key document that applicant countries submit to WHO and the MECP for review to consider whether certification should be granted. It provides evidence that malaria transmission has been interrupted, resulting in zero indigenous cases in at least the past three consecutive years, and that the surveillance and response system will be able to prevent reestablishment of transmission. The template was developed to help countries develop their national elimination report.

Major recommendations for improvement on this template:

- 1. While the template should ensure that essential and critical data and information are included in the report, it should allow some freedom for countries to describe what they believe is important for certification of malaria elimination.
- 2. How malaria elimination was achieved in the country and how elimination is going to be sustained in the future through prevention of re-establishment are equally important for certification.
- 3. Health indicators should be revised to be in line with recommended indicators that are used to assess the quality of health service by WHO.
- 4. General, geographical and ecological information should be specifically related to malaria.
- 5. The number of tables should be reduced and should focus more on data from recent years.
- 6. For prevention of re-establishment of transmission, countries should describe what has been done in the last three years to maintain zero indigenous cases, what will be changed in the future, whether and how these activities or strategies will be sustained in the future.
- 7. Data or documents needed for certification, as specified in the MEAT, should be linked to the national elimination report.

# Standard operating procedures for WHO precertification visits and missions of the MECP, and template for the certification evaluation mission report

Standard operating procedures (SOPs) were developed to provide practical guidance to WHO staff and MECP members who visit a country to assess the preparedness for certification of malaria elimination. It describes the objectives of WHO precertification missions and MECP certification evaluation missions, and clarifies the roles and responsibilities of participants in a mission. It provides guidance on defining the agenda of a certification evaluation mission to ensure that the objectives of the mission can be achieved in a set timeframe. It provides principles for site selection and suggests methodology and tools to be used in assessing different technical areas, including the competency of staff at the national and subnational levels. The template for the certification evaluation mission report was developed to help team members develop their mission report quickly and efficiently

while ensuring that the two major questions for certification are adequately answered. This SOP is for internal use of WHO staff and MECP members.

The MECP concluded that this tool is useful and will be beneficial for future certification evaluation missions.

#### A regional approach to certify malaria elimination in the WHO European Region

The *Global technical strategy for malaria 2016–2030* (GTS), adopted by the World Health Assembly in May 2015, reiterates the ultimate vision of achieving a malaria-free world. In line with the global vision, the WHO European Region, after reaching zero indigenous malaria cases in 2015, has committed to prevent re-establishment of transmission in the region.

WHO's mandate to certify countries malaria-free status comes from a resolution endorsed by the 13th World Health Assembly in 1960, which "requests the Director-General to establish an official register listing areas where malaria eradication has been achieved, after inspection and certification by a WHO evaluation team". The first list of official register was published in 1963. Because the official register was restricted to countries that achieved elimination with specific measures, a list was created to list countries "where malaria never existed or disappeared without specific measures", in order to supplement the official register. The first supplementary list was first published in 1963. The supplementary list was latest updated in 2012, adding 52 more countries. Some countries, listed in the supplementary list, such as Maldives and Malta, had requested for certification. The European region currently has 20 countries listing in the official register, 30 countries in the supplementary list, and 4 - neither certified nor listed in the supplementary list. Taken all these together, a regional approach to certify the whole European region as malaria-free was first proposed during the inaugural meeting of malaria elimination certification panel (MECP).

Following on the discussion from the first MECP meeting, the WHO Regional Office for Europe, in collaboration with GMP, convened a technical consultation in Baku, Republic of Azerbaijan, from 26–27 November 2018. The technical consultation concluded that all countries and territories in the WHO European Region have reported zero indigenous cases for at least the past three consecutive years and the surveillance and response system in place appeared to be adequate to prevent reestablishment of transmission. Regional certification of malaria elimination was considered feasible and could be recommended for the WHO European Region. The Baku meeting proposed criteria and drafted methodology for regional certification.

The MECP noted that a regional approach to certify WHO EURO malaria is in line with the vision of a malaria-free world and regional malaria elimination goals. The MECP recognized that the regional approach may be an efficient way to certify multiple countries that had been malaria-free for a long period of time and that there might be additional value using a regional approach to conduct certification, especially when a region or sub-region is geographically related and shares a similar ecological environment. However, while the MECP is not against a regional approach for certification, it believes that higher priority should be given to certifications requested by individual countries in the short term, given that the number of countries requesting certification is on the rise.

#### Review workplan for 2020-2021

Dr Li Xiao Hong presented a proposed plan of certification in the next two years. The MECP suggested that countries with a plan to request WHO certification of malaria elimination should be strongly encouraged to reach out to the WHO secretariat to begin preparations well in advance so that a certification process could be successfully completed and will take into account the complexity of epidemiological situation in each country.

# **ANNEX 1. AGENDA**

# **Chair: Brian Greenwood**

Day 1 – Tuesd	ay, 14 May 2019		
Session 1 Setting	g the scene	Presenter/facilitator	
8:30 – 9:00	Registration	Secretariat	
9:00 – 9:15	Welcome and opening of meeting Introductions Group photo	Pascal Ringwald	
9:15 – 9:30	Declaration of interests  Meeting purpose and objectives	Li Xiao Hong	
9:30 – 10:10	WHO certification of malaria elimination: some thoughts from the Global Malaria Eradication Programme and recent certification practices (20') Discussion (20')	José Nájera	
10:40 – 11:30	Discussion of indicators and issues related to certification	Kim Lindblade	
11:30 – 12:30	Review the terms of reference of MECP members and the operating procedures for certification Discussion	Li Xiao Hong	
Session 2 Discus	sion of certification of malaria elimination in Argentin	ıa	
13:30 – 14:00	Briefing from the certification mission	Rossitza Mintcheva	
14:00 – 15:30	Q & A		
16:00 – 17:00	Conclusions and recommendations	Brian Greenwood	
17:00 – 17:15	Summary of Day 1		

<b>Day 2 – Wednesday, 15 May 2019</b>	Dav	12 – Y	Wed	lnesda	av.	15 I	Ma۱	<i>2</i> 019
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Session 2 Discussion of cer	rtification of malaria	elimination in Algeria
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9:00 – 9:30	Briefing from the certification mission	Allan Schapira
9:30 – 10:30	Q & A	
11:00 – 12:00	Conclusions and recommendations	Brian Greenwood
Session 3 Discu	ssion on requirements for WHO certification	
13:00 – 13:15	Introduction to the Malaria Elimination Audit Tool and requirements for certification	Li Xiao Hong
13:15 – 15:00	<ul> <li>Discussion on requirements for certification (1)</li> <li>National strategy, coordination, policies and advocacy (Fred Binka)</li> <li>Surveillance (Anatoly Kondrashin)</li> <li>Diagnosis (Daouda Ndiaye</li> </ul>	Kim Lindblade
15:30 – 17:00	<ul> <li>Discussion on requirements for certification (2)</li> <li>Case management (Brian Greenwood)</li> <li>Entomological surveillance and vector control (Martha Quiñones)</li> <li>Prevention of re-establishment (Allan Schapira)</li> </ul>	Kim Lindblade

# Day 3 – Thursday, 16 May 2019

# Session 4 Discussion on operating procedures for certification

0.00 44.00	Template for national elimination reports	Rossitza Mintcheva	
9:00 – 11:00	Template for certification mission report	Li Xiao Hong	
Session 5 Discu	ssion on the upcoming workplan for certification	*	
11:20 – 12:00 Regional certification of malaria elimination in the WHO EURO region		Li Xiao Hong	
12:00 – 12:50 Work plan for 2020 - 2021		Li Xiao Hong	
12:50 – 13:00	Meeting closure	Pedro Alonso	

#### **ANNEX 2. LIST OF PARTICIPANTS**

Members of the Malaria Elimination Certification Panel

Fred BINKA

School of Public Health

University of Health and Allied Sciences

**GHANA** 

Prof Brian GREENWOOD Clinical Tropical Medicine

London School of Hygiene and Tropical

Medicine

UNITED KINGDOM

Cecilia T. HUGO

ACTMalaria Foundation, Inc,

San Pedro Laguna PHILIPPINES

Anatoly KONDRASHIN

Martinovski Institute of Medical Parasitology

and Tropical Medicine

Sechenov First Moscow Medical University

**RUSSIAN FEDERATION** 

Rossitza Ivanova MINTCHEVA Independent Consultant

BULGARIA

Daouda NDIAYE

Chief of Parasitology Department (UCAD)

Cheikh Anta Diop University

SENEGAL

Allan SCHAPIRA

Independent Consultant

**PHILIPPINES** 

Reza MAJDZADEH

Head of the Iran's National Institute for Health

Research

Tehran University,

IRAN, ISLAMIC REPUBLIC OF

Martha L. QUIÑONES

Department of Public Health, Medicine Faculty

Universidad Nacional de Colombia

COLOMBIA

Payre L. JOSHI

Independent Adviser

**INDIA** 

Keith H. CARTER

Senior Adviser, Malaria

USA

Dr Jose NÁJERA (ad hoc member)

Independent Researcher

**SWITZERLAND** 

Dr Mahamadou Ali THERA (ad hoc member)

Professor of Parasitology-Mycology Malaria Research and Training Center

MALI

WHO HQ

Pedro ALONSO

Director

Global Malaria Programme

Pascal RINGWALD

Coordinator

**Drug Efficacy and Response** 

Kim LINDBLADE

Team Leader

**Elimination Unit** 

LI Xiao Hong

**Technical Officer** 

**Elimination Unit** 

**Amanda TIFFANY** 

Epidemiologist

**Elimination Unit** 

Carlota GUI

Project Officer

**Elimination Unit** 

Selome TADESSE WORKU

Team Assistant

**Elimination Unit** 

# **WHO Regional Office for Africa**

Dr Kharchi TFEIL **Medical Officer BURKINA FASO**