Meetings of the Malaria Elimination Certification Panel (MECP)

Report of two virtual meetings, 3–4 February 2021 and 17 July 2021
Meetings of the Malaria Elimination Certification Panel (MECP)

Report of two virtual meetings, 3–4 February 2021 and 17 July 2021
Contents

Abbreviations iv

1. Executive summary 1
2. Background 1
3. Objectives 2
4. Process 2
5. Certification of malaria elimination in El Salvador 3
   5.1. Review of background documents by the MECP 3
   5.2. Independent evaluation mission 3
   5.3. Summary of discussions at the MECP meeting 3
   5.4. Recommendation 4
6. Certification of malaria elimination in China 4
   6.1. Summary of the working group meetings 4
   6.2. Review of documentation by the MECP 4
   6.3. Independent evaluation mission to China 5
   6.4. Summary of discussions at the MECP meeting 5
   6.5. Recommendation 6
7. Review of data from certified countries 6
8. Plans to review evidence on P. knowlesi transmission in Malaysia 6
9. References 7

Annex 1. Modifications to standard operating procedures in a malaria-free certification process under exceptional circumstances 8

Annex 2. Agendas 10

Annex 3. List of participants 12

Annex 4. Declarations of interests 13
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MECP</td>
<td>Malaria Elimination Certification Panel</td>
</tr>
<tr>
<td>PAHO</td>
<td>Pan American Health Organization</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
1. EXECUTIVE SUMMARY

Two countries, El Salvador and China, submitted an official request for certification of malaria elimination in 2020. The World Health Organization (WHO) convened several meetings of the Malaria Elimination Certification Panel (MECP) to discuss the certification process in the two countries in the context of the COVID-19 pandemic. Countries where COVID-19 is not well controlled should prioritize their COVID-19 response over the certification process; in such cases, certification will be postponed. However, in countries where the COVID-19 situation is well controlled, the certification process may proceed. The key steps of the certification process during the COVID-19 pandemic remain the same as those published in WHO guidance, but modifications may include the use of virtual meetings and an external evaluator to visit the country in person for field assessment activities. These modifications were published in the WHO document *Preparing for certification of malaria elimination* (1). After reviewing the findings of the independent evaluation missions to the two countries, the MECP concludes that both El Salvador and China have met the current WHO criteria and recommends that these countries be certified as malaria-free.

2. 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 Group and Global Malaria Programme, whether malaria elimination can be certified in applicant countries based on WHO criteria. Since the establishment of the MECP, four countries (Paraguay, Uzbekistan, Algeria and Argentina) have been certified as malaria-free, following the standard operating procedures described in *the Framework for malaria elimination* (2). In 2020, two countries, El Salvador and China, submitted an official request to the WHO Director-General to certify the malaria-free status of their country.

In the context of the COVID-19 pandemic in 2020, the WHO Secretariat consulted the MECP and the Malaria Policy Advisory Group to determine whether it would be feasible and appropriate to conduct malaria certifications during the pandemic (a summary of the discussions is provided in Annex 1). After the consultation, modifications were made to the standard operating procedures for the certification of elimination process and published in *Preparing for certification of malaria elimination* (1).

Upon receiving each country’s official request for certification, the WHO Secretariat closely monitored the COVID-19 situation in the applicant country and discussed the conditions with the ministry of health and the MECP in order to determine whether and when a certification mission should proceed. The decision to undertake a certification mission took into consideration the willingness of the ministry of health to adapt the mission to the pandemic situation, for example, by holding virtual meetings for discussions and sharing documents electronically. In addition, specific public health guidance was developed for different mission activities in order to reduce the potential risk of COVID-19 infection.

Because of the COVID-19 pandemic situation, the MECP met virtually (not in person) in 2020 and 2021 to discuss the potential certification of El Salvador and China. Given the size of China, a core group of MECP members was established to work closely with the Secretariat on planning the certification mission to China.
3. OBJECTIVES

The members of the MECP met virtually on 16 November 2020, 3–4 February and 17 July 2021 to review countries’ malaria elimination reports and discuss potential certification of malaria elimination in El Salvador and China. The objectives of these meetings were:

- to review El Salvador’s national elimination report;
- to review the findings of the independent evaluation mission to El Salvador;
- to reach a consensus on whether El Salvador should be certified as malaria free;
- to review the provincial reports from 24 formerly endemic provinces in China;
- to review the malaria-free status of certified countries;
- to brief the MECP on the plan to review evidence on the transmission of *Plasmodium knowlesi*;
- to review China’s national elimination report;
- to review the findings of the independent evaluation mission to China;
- to reach a consensus on whether China should be certified as malaria-free.

In addition to the plenary meetings, a few members of the MECP formed a working group to discuss the plan for malaria elimination certification in China.

4. PROCESS

Prior to each MECP meeting, the WHO Secretariat shared the pre-read documents with all members. These documents included the national elimination reports, the provincial reports from 24 formerly endemic provinces in China, and other supporting documents submitted by the Ministry of Health of El Salvador and the National Health Commission of China. Prior to the discussion of a country’s potential certification, the respective members of the independent evaluation missions to El Salvador and China prepared a report based on their findings. In order to facilitate the discussion, the Secretariat summarized the facts and key information provided in the 24 provincial reports from China to orient MECP members on the heterogeneity and diversity of malaria epidemiology in the country. The Secretariat consolidated all MECP members’ comments and feedback on the national elimination reports and provincial reports.
5. CERTIFICATION OF MALARIA ELIMINATION IN EL SALVADOR

5.1. Review of background documents by the MECP

MECP members reviewed and discussed the national elimination report and other supporting documents submitted by the Ministry of Health of El Salvador. The review identified areas to be explored or clarified during the independent evaluation mission.

5.2. Independent evaluation mission

The mission team consisted of Dr Regina Rabinovich (ad hoc member of the MECP, team lead) and Dr Martha L. Quiñones. Prior to the independent evaluation mission, Dr Edison Soto from Columbia was selected as an external evaluator by the members of the independent mission, the Chair of the MECP and the WHO Secretariat. The mission was undertaken on 18–29 March 2021. The mission team participated virtually, while Dr Soto visited the country in person to undertake the assessment activities under the guidance of Drs Rabinovich and Quiñones. The WHO observers included Dr Franklin Hernandez, the Pan American Health Organization (PAHO) representative in El Salvador, Dr Blanca Escribano Ferrer, PAHO malaria elimination advisor, and Dr Li Xiao Hong, technical officer of the Elimination Unit, WHO Global Malaria Programme.

The mission started with a virtual meeting held with the Minister of Health (Francisco José Alabí Montoya), which provided an introduction to the malaria history and programme in El Salvador. This was followed by visits to the National Malaria Program, the National Laboratory of Public Health, and the Central Military Hospital. Field visits were made to San Miguel and Sistema Basico De Atencion Integrado (SIBASI) La Union in the eastern region and Santa Ana and SIBASI in Ahuachapan and Sonsonate in the western region to meet with staff working at the regional offices, SIBASI, health clinics and communities. The team also visited the international health office, migration office and environmental management services. During the visits, the local malaria teams briefly presented their work to the mission members followed by discussion. The mission team held virtual interviews with malaria staff, including laboratory technicians, community volunteers (colaboradores voluntarios in Spanish [ColVol]), health practitioners and health officers. Verification of the data and documentation was conducted on site by Dr Soto and electronically by the mission team. The members of the independent evaluation mission discussed their findings with the Ministry of Health at the end of the mission. The report of the independent evaluation mission to El Salvador was prepared by the mission team and shared with all members of the MECP.

5.3. Summary of discussions at the MECP meeting

The MECP discussion was chaired by Prof Brian Greenwood. Dr Rabinovich briefed the MECP on the activities conducted by the evaluation team, as well as their observations and findings. She noted that it had been challenging to conduct the mission during the COVID-19 pandemic. Nevertheless, the mission had been productive and achieved its objectives with extensive support from the National Malaria Program of El Salvador and WHO Secretariat. The members of the certification mission concluded that El Salvador has met the two criteria for WHO certification and highlighted the following aspects that may have contributed to El Salvador’s success in malaria elimination: the consistent political commitment and sufficient domestic financing allocated in national budget lines for more than 50 years; the network of ColVols who contributed to the identification and detection of malaria cases; free health care provided to the entire population, including immigrants and travellers; collaboration with other sectors, such as environmental management,
the military and agriculture, in the malaria response; and the collapse of the cotton industry, which had halted the influx of migrant workers from endemic countries.

The following issues were raised and discussed by the MECP members: the current and possible future roles of the ColVol network; the effectiveness of vector control; the relapses of *P. vivax* and mechanisms to ensure treatment compliance; the follow-up of *P. vivax* cases to ensure parasite clearance; the appropriate treatment for *P. falciparum*; the timeliness of surveillance; the sustainability of microscopy to diagnose malaria; the programme for quality assurance of diagnostics; and cross-border issues, including malaria surveillance among migrants from neighbouring endemic countries. Satisfactory responses to these issues were provided by the members of the certification mission and the WHO Secretariat.

**5.4. Recommendation**

The MECP unanimously recommends that El Salvador be certified as malaria-free.

**6. CERTIFICATION OF MALARIA ELIMINATION IN CHINA**

**6.1. Summary of the working group meetings**

The following members were invited to join a working group for more in-depth review and analysis of malaria elimination in China: Brian Greenwood, Cecilia Hugo, Anatoly Kondrashin and Allan Schapira. Five meetings of the working group for China certification were convened to design and discuss the review of documentation submitted by China and the realization of an independent evaluation mission to China in the context of the COVID-19 pandemic. The working group discussed the priorities of the assessment activities during the certification mission and suggested a list of documents that should be reviewed prior to the mission. In addition, the group supported the Secretariat in developing a standard template to collect comments and synthesize information from the provincial reports.

The working group requested the Secretariat to review the certification/verification/validation practices, experiences and lessons related to other disease elimination activities in China. Dr Li Xiao Hong reviewed and presented the process for assessing the elimination of polio, maternal and neonatal tetanus, lymphatic filariasis and trachoma in China. Briefly, each of the four diseases used its own criteria and followed a completely different process for the assessment. Some, but not all, of the assessments included field visits to the country. Those that did conduct field assessments used their own criteria to select which sites to visit, taking into account the feasibility and cost of travel to the area. After the review, the working group determined that the planned process for certification of malaria elimination in China was reasonable and appropriate, with a good combination of desk review and field visits. The working group recommended that WHO consider the use of national experts to assist with the field assessments and review of reports from subnational areas, where relevant.

**6.2. Review of documentation by the MECP**

Prior to submitting an official request for certification, China verified the malaria-free status of each province using a standardized process. The reports and results generated by the subnational verification process were shared with the MECP by the National Health Commission of China. The MECP reviewed the reports from 24
formerly endemic provinces. Each member provided comments on the provincial reports they were assigned using a standard template developed by the Secretariat. All members of the MECP reviewed the national elimination report and provided their individual comments. The comments and feedback from the review of the provincial and national reports were consolidated by the Secretariat and jointly reviewed by the MECP members in their virtual meetings prior to the independent evaluation mission. In addition, supporting documents were assigned to a few members for their in-depth review to support the independent mission to China.

6.3. Independent evaluation mission to China

The following members participated in the independent evaluation mission: Brian Greenwood (team lead), Fred Binka, Daouda Ndiaye, Anatoly Kondrashin and Allan Schapira. The first three members visited the country in person and the latter two participated virtually, joining all virtual meetings and exchanging thoughts/comments via electronic means, with support from the WHO Secretariat. Dr Li Xiao Hong from the Global Malaria Programme participated in the full mission to provide support to the members. Dr Robert Kezzala, Technical Officer, WHO Country Office in China, participated in the field visits.

The team arrived in Shanghai on 1 May 2021 and underwent a 14-day quarantine to adhere to China’s policy. Prior to travel and during the quarantine, virtual meetings were convened to discuss recent outbreaks and clarify case classifications; orient the team to the health system, including the information system and malaria database; clarify data and information in the national elimination report; review malaria elimination and prevention of re-establishment in Liaoning and Sichuan provinces; and understand the malaria situation and services provided in the regions of Myanmar bordering Yunnan.

After the three in-country members had completed their quarantine, they visited the National Institute of Parasitic Diseases in Shanghai to meet with national health authorities, review the supporting documents including the national malaria database, and visit the National Reference Laboratory. The mission split into two teams to make visits to the provinces of Yunnan, Hainan, Anhui and Hubei. In each province, the team travelled to the capital city and two selected counties to meet with provincial and government authorities; staff from the centres for diseases control and prevention at all levels; hospitals; health centres and laboratories at all levels; customs and others. During these visits, team members reviewed malaria prevention and control services, the functioning of epidemiological and entomological surveillance systems, laboratory diagnostic services and data management systems. The mission concluded with a final meeting with the Vice Minister of Health and other senior officials of the National Health Commission at which their findings and conclusions were presented.

6.4. Summary of discussions at the MECP meeting

The MECP meeting was chaired by Prof Rossitza Mintcheva. On behalf of the team, Prof Brian Greenwood presented the observations and findings from the mission. He commented that the team had been impressed by the openness and transparency of the Chinese authorities and professionals at all levels during their virtual meetings and field visits. The mission had been given complete freedom to choose which provinces, counties, hospitals, clinics, and customs and border posts to visit. The members’ field visits reinforced the findings and information provided in the national elimination report and provincial reports. The team concluded that China’s success in malaria elimination can be attributed to strong commitment, including financial commitment, by both the central and local governments, good implementation of a well-planned programme
with technically sound strategies, a robust surveillance and response system, competent staff, and social and economic development, including the poverty reduction programme, which has led to better housing, communications, living conditions and health care.

The MECP discussed the following issues: the malaria situation in the border areas of Myanmar, current malaria activities in the Myanmar border regions and current cross-border collaboration activities; the issue of primaquine supply; the role of the private sector and traditional medicine in malaria; the use of primaquine for the treatment of \emph{P. falciparum}; follow-up of \emph{P. vivax} cases; and information on antimalarial drug resistance. As five Chinese provinces or autonomous regions share a border with at least one malaria-endemic country, the panel also discussed the malaria situation in the border regions of these endemic countries and the risk of importation into China. The panel concluded that the risk of importation across these borders appears to be concentrated in Yunnan.

6.5. Recommendation

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

7. REVIEW OF DATA FROM CERTIFIED COUNTRIES

Dr Li presented data on malaria cases reported by countries that have already been certified as malaria-free. The data sources included peer-reviewed journal articles and case data submitted by countries to the WHO regional offices. A few countries had experienced outbreaks or reported introduced cases after certification. Nevertheless, based on the minimum indication for re-establishment of malaria transmission, the countries listed in the official register have maintained their malaria-free status. The Secretariat is currently developing a standard form for malaria-free countries to report their malaria situation through the World Malaria Report. In addition, Dr Li provided feedback from recently certified countries on the implementation of recommendations made by the MECP when they were certified.

8. PLANS TO REVIEW EVIDENCE ON \emph{P. knowlesi} TRANSMISSION IN MALAYSIA

Dr Lindblade presented the plans to review the evidence on \emph{P. knowlesi} transmission in Malaysia. In recent years, the number of \emph{P. knowlesi} cases has increased to around 3000 cases per year in Malaysia; at the same time, the country has reported zero indigenous cases of the four species of human malaria parasites since 2017. It is unclear why the number of \emph{P. knowlesi} cases has increased, although some contributing factors may be the increased use of polymerase chain reaction to diagnose \emph{P. knowlesi}, the loss of immunity to other malaria species and changes in land-use patterns. WHO has commissioned a systematic literature review of the evidence for sustained human–mosquito–human transmission and a spatiotemporal analysis of surveillance data from Malaysia in conjunction with the Ministry of Health of Malaysia, the University of Malaysia Sabah and the London School of Hygiene and Tropical Medicine. A technical expert group will be convened after the completion of the systematic review and spatiotemporal analysis to make recommendations to WHO on whether or not \emph{P. knowlesi} should continue to be considered primarily zoonotic, and discuss the implications for malaria elimination and eradication.
9. REFERENCES


ANNEX 1. MODIFICATIONS TO STANDARD OPERATING PROCEDURES IN A MALARIA-FREE CERTIFICATION PROCESS UNDER EXCEPTIONAL CIRCUMSTANCES

Before the COVID-19 pandemic, the completion of the certification process in three countries (Azerbaijan, China and El Salvador) was planned for 2020, based on discussions between the ministries of health and WHO. However, the rapid emergence and spread of COVID-19 across the world has created massive global disruptions that are impacting people’s lives and well-being, as well as the planned work. Although some countries or regions have managed to control the situation at various points, the pandemic is not envisioned to end in the foreseeable future. The MECP met in 2020 to consider whether it would be feasible and appropriate to conduct malaria certifications during the pandemic. The MECP recognized that countries must balance the requirements to control COVID-19 with other public health priorities and strongly suggested that certification be postponed for countries where COVID-19 is not well controlled. However, the certification process may proceed in countries where the COVID-19 situation is well controlled. A decision tree was developed by the WHO Secretariat and approved by the MECP to determine whether the certification process should take place, and if it should, how the process could be adapted to the given pandemic restrictions (Fig. 1). Prior to an independent evaluation mission, the COVID-19 situation in the country requesting certification, the feasibility of international and domestic travel, and the information technology capacity in the country, including in subnational areas, will be assessed to determine how the mission can be safely conducted. Under exceptional circumstances such as the COVID-19 pandemic, a certification mission may be modified, for example, by conducting meetings and interviews virtually and deploying international or national experts to serve as external evaluators under the supervision of MECP members. These modifications were published in Preparing for certification of malaria elimination (1) following the review and approval of the document by the MECP and Malaria Policy Advisory Group.
Figure 1. Decision tree to determine the approach to an independent malaria certification evaluation mission a, b, c, d, e

Notes
a. The epidemiological criteria to determine whether the COVID-19 epidemic is controlled will be based on WHO criteria.
b. Travel assessments will be based on: availability of international and domestic flights; in-country travel policies; WHO travel policies; and quarantine policies upon entry into or return from country that are agreeable to MECP members.
c. A “conventional mission” is as described in Chapter 4.6 of Preparing for certification of malaria elimination (1).
d. Based on the assessment of quarantine policies, one MECP member may be identified to travel to the country if possible. The information technology capacity will be assessed in advance to determine how to combine virtual activities and field work.
e. External evaluators will be supervised by MECP members.

References
# ANNEX 2. AGENDAS

## Session 1

### DAY 1 – WEDNESDAY, 3 FEBRUARY 2021

<table>
<thead>
<tr>
<th>CET time</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00 – 13:10</td>
<td>Welcome and opening of meeting  Introductions</td>
<td>Ren Minghui, Pedro Alonso</td>
</tr>
<tr>
<td>13:10 – 13:25</td>
<td>Declaration of interests  Meeting purpose and objectives  Group photo</td>
<td>Li Xiao Hong</td>
</tr>
<tr>
<td>13:25 – 14:05</td>
<td>Presentation: Findings, conclusions and recommendations from the independent certification mission to El Salvador</td>
<td>Regina Rabinovich, Martha Quiñonez, Edison Soto</td>
</tr>
<tr>
<td>14:05 – 14:30</td>
<td>Points of clarification</td>
<td>All members</td>
</tr>
<tr>
<td>14:45 – 15:30</td>
<td>Plenary discussion on potential certification of El Salvador</td>
<td>All members</td>
</tr>
<tr>
<td>15:30 – 15:50</td>
<td>Discuss and agree on high-level recommendations to improve the programme to prevent re-establishment of transmission</td>
<td>All members</td>
</tr>
<tr>
<td>15:50 – 16:00</td>
<td>Conclusion</td>
<td>Brian Greenwood</td>
</tr>
</tbody>
</table>

### DAY 2 – THURSDAY, 4 FEBRUARY 2021

<table>
<thead>
<tr>
<th>CET time</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00 – 14:15</td>
<td>Review data from certified countries</td>
<td>Li Xiao Hong</td>
</tr>
<tr>
<td>14:15 – 14:30</td>
<td>Plans for review of evidence regarding <em>P. knowlesi</em> transmission in Malaysia</td>
<td>Kim Lindblade</td>
</tr>
<tr>
<td>14:30 – 15:15</td>
<td>Review and discussion of China’s provincial reports</td>
<td>Li Xiao Hong</td>
</tr>
<tr>
<td>15:30 – 16:30</td>
<td>Plan for certification of malaria elimination in China</td>
<td>All members</td>
</tr>
<tr>
<td>16:30 – 16:45</td>
<td>Summary of major discussion points</td>
<td>Kim Lindblade</td>
</tr>
<tr>
<td>16:45 – 17:00</td>
<td>Wrap-up and closure of Session 1</td>
<td>Pedro Alonso</td>
</tr>
</tbody>
</table>
### Session 2

#### DAY 1 – WEDNESDAY, 3 FEBRUARY 2021

<table>
<thead>
<tr>
<th>GVA time</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00 – 13:10</td>
<td>Welcome and opening of meeting</td>
<td>Pedro Alonso</td>
</tr>
</tbody>
</table>
| 13:10 – 13:15 | Declaration of interests  
Meeting purpose and objectives                                               | Li Xiao Hong                                  |
| 13:15 – 13:40 | Presentation: Findings, conclusion and recommendations from the  
independent certification mission to China                                   | Brian Greenwood and other team members        |
| 13:40 – 14:00 | Clarifications, Q & A                                                   | All members                                   |
| 14:15 – 14:45 | Plenary discussion on potential certification of China                   | All members                                   |
| 14:45 – 15:55 | Discuss and agree on high-level recommendations to improve the  
programme to prevent re-establishment of transmission                        | All members                                   |
| 15:55 – 16:00 | Closure                                                                  | Pedro Alonso                                  |
ANNEX 3. LIST OF PARTICIPANTS

MEMBERS OF THE MALARIA ELIMINATION CERTIFICATION PANEL

Fred Binka
School of Public Health
University of Health and Allied Sciences
Ghana

Keith H. Carter
Senior Adviser, Malaria
United States of America

Prof Brian Greenwood
Clinical Tropical Medicine
London School of Hygiene and Tropical Medicine
United Kingdom of Great Britain and Northern Ireland (*Chair session 1*)

Cecilia T. Hugo
ACTMalaria Foundation, Inc.
San Pedro Laguna
Philippines

Payre L. Joshi
Independent Adviser
India

Anatoly Kondrashin
Martsinovskiye Institute of Medical Parasitology and Tropical Medicine
Sechenov First Moscow Medical University
Russian Federation

Reza Majdzadeh
Professor of Epidemiology
School of Public Health and Knowledge Utilization Research Center
Tehran University of Medical Sciences
Islamic Republic of Iran

Rossitza Ivanova Mintcheva
Independent Consultant
Bulgaria (*Chair session 2*)

Daouda Ndiaye
Chief of Parasitology Department (UCAD)
Cheikh Anta Diop University
Senegal

Martha L. Quiñones
Department of Public Health
Medicine Faculty
Universidad Nacional de Colombia
Colombia

Regina Rabinovich
Barcelona Institute for Global Health
Hospital Clinic – Universitat de Barcelona
Spain

Allan Schapira
Independent Consultant
Philippines

Edison Soto
External Evaluator
Colombia

WHO HEADQUARTERS

Pedro Alonso
Director
Global Malaria Programme (GMP)

Laurent Pascal Bergeron
Project Officer
GMP Elimination Unit

Li Xiao Hong
Technical Officer
GMP Elimination Unit

Kim Lindblade
Epidemiologist
GMP Elimination Unit

Selome Tadesse Worku
Team Assistant
GMP Elimination Unit

Amanda Tiffany
Epidemiologist
GMP Elimination Unit

WHO REGIONAL OFFICE FOR THE WESTERN PACIFIC

Dr James Kelley
Technical Officer (malaria)

WHO REGIONAL OFFICE FOR THE AMERICAS

Blanca Escribano Ferrer
Regional Advisor for Elimination

Roberto Montoya
Regional Advisor for Malaria
ANNEX 4. DECLARATIONS OF INTERESTS

All MECP and ad hoc members participating in the meetings submitted a Declaration of Interest form, which was assessed by the WHO Secretariat. Based on the assessment, Dr Keith Carter was partially recused from the discussion on certification of El Salvador and was not part of the decision-making on the final recommendation.