

Guideline on Yellow Fever Surveillance at Points of Entry

Prevention of importation of disease into Republic of Maldives in line with The International Health Regulations (IHR2005)

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1 Introduction

Yellow fever is a serious viral illness that is transmitted between people by mosquitoes. If an infected traveler imported the virus, mosquito species present in Maldives may be able to transmit yellow fever, and cause an outbreak. Yellow fever can lead to serious illness and even death. It is called 'yellow fever' because in serious cases, the skin turns yellow in color due to 'jaundice'. Yellow fever is a quarantinable disease in Maldives.

Symptoms of yellow fever may take 3 to 6 days to appear. Some infections can be mild but most lead to serious illness characterized by two stages. In the first stage, fever, muscle pain, nausea, vomiting, headache and weakness occur. About 15 to 25 per cent of those with yellow fever progress to the second stage also known as the 'toxic' stage, of which half die within 10 to 14 days after onset of illness. Visible bleeding, jaundice, kidney and liver failure can occur during the second stage. The World Health Organization (WHO) closely monitors reports of yellow fever infection. Yellow fever is considered to be endemic in 31 African and 13 Central and South American countries. WHO requires all cases of yellow fever to be reported to it under IHR (2005).

Yellow fever does not occur in Maldives, however one of the mosquito species (*Aedes aegypti*) that can transmit the disease is common. There is no specific treatment for yellow fever, however medicines can be used to relieve the symptoms and may improve the outcome for seriously ill patients.

2 Scope

This document applies to procedures that need to be followed in implementing the yellow fever surveillance and is applicable to all port health officers responsible for surveillance at points of entry. There is a potential of yellow fever infection in travelers visiting or returning from endemic areas. Health officials at PoE need to be aware of the disease in patients with a relevant travel history. While the risk for local transmission is low, on-going surveillance on the disease, mosquito vectors, effective vector control, and prompt disease investigation and control remain the essential preventive strategies. When travelling to

yellow fever endemic areas, Maldivian travelers are reminded to take mosquito bite preventative measures as well as to undergo yellow fever vaccination. Potential travelers should consult the Port Health or Immunization Section of the Health Protection Agency if they are visiting countries where entry requirements specify yellow fever vaccination.

3 Objective

This document details procedures to be applied to manage travelers coming into Maldives from or through a yellow fever risk country and to ensure a uniform approach in the implementation.

3.1 IHR and Yellow Fever

The International Health Regulations (2005) provide the legal framework for international cooperation on the prevention of international spread of infectious diseases across borders on the global level. Yellow fever has always been considered a priority disease for international control and was made notifiable to WHO in 1948. Together with cholera and plague it was among the three quarantinable diseases specified in the International Health Regulations (1969). In 2005, WHO adopted the International Health Regulations (IHR) (2005) for enforcement in June 2007. In terms of IHR (2005), countries are to treat travelers with respect for their dignity, human rights and fundamental freedoms and minimize any discomfort or distress associated with such measures.

3.2 Vaccination Requirement

Vaccination against yellow fever is required to prevent the importation of yellow fever virus in to countries where the disease does not occur but where the mosquito vector and non-human primate hosts are present. In those settings, vaccination is an entry requirement for all travelers arriving (including airport transit) from countries where there is a risk of yellow fever transmission, according to the IHR.

3.2.1 Vaccine

The 17D vaccine, which is based on a live, attenuated viral strain, is the only commercially available yellow fever vaccine. It is given as a single subcutaneous (or intramuscular) injection. Yellow fever vaccine is highly effective (approaching 100%). All individuals aged 12 months or older and living in countries or areas at risk should receive yellow fever vaccine.

3.2.2 Vaccination Certificate

- Certificate of vaccination or prophylaxis and any such document must be written in English or French and where appropriate, in another language together with English or French recording the nature and date of vaccination or prophylaxis.
- Certificates must be signed in the hands of the clinician, who shall be a medical practitioner or other authorized health worker, supervising the administration of the vaccine or prophylaxis. The certificate must also bear the official stamp of the administering centre; however, this shall not be an accepted substitute for the signature.
- An equivalent document from an armed force to an active member of the force shall be accepted in lieu of a vaccination certificate, provided the document possesses the information in *International certificate of vaccination or prophylaxis* (Annex 6, IHR 2005).
- Vaccination certificate can be obtained through IMUGA health declaration section using user login and credentials if passengers and crews had produced a valid document online.

3.2.3 Vaccination Validity

Yellow fever vaccination becomes valid from the tenth day onwards and gives lifelong immunity.

3.2.4 Vaccination Exemption

• If yellow fever vaccination is contraindicated for medical reasons, a medical certificate is required for everyone above the age of 12 months for exemption. This

certificate should be provided by a registered medical practitioner and should contain the demographic details of the patient and reason for exemption.

- The below mentioned persons are exempted from production of yellow fever vaccination certificate:
 - o Children below the age of 12 months.
 - Any person suffering from some chronic illness and has poor resistance and is thereby exempted from being vaccinated.
 - Crew and passengers of an aircraft/sea faring vessel transiting under
 hours through an airport/seaport located in a country with risk of yellow fever transmission.

4 Disinsection for vessels arriving from yellow fever zones

All vessels arriving into Maldives shall carry out disinsection procedures in order to control importing Yellow Fever infected mosquitoes.

4.1 Aircraft Disinsection

- All aircrafts arriving from areas with risk of Yellow Fever shall carry out disinsection of aircraft.
- Both, passenger cabins and cargo hold shall be disinsected.
- The type of chemical/spray and method followed shall be approved by WHO.
- Evidence reports of disinsection carried shall be provided via the General Declaration of the aircraft along with the used spray cans.

4.2 Sea vessel disinsection

• Port health officers are to visit along sided International incoming vessels from Yellow Fever areas to ensure disinsection has been carried out by vessel operator or the captain prior to offloading passengers/crew and boarding of officers.

5 Disease Surveillance Procedure at Points of Entry

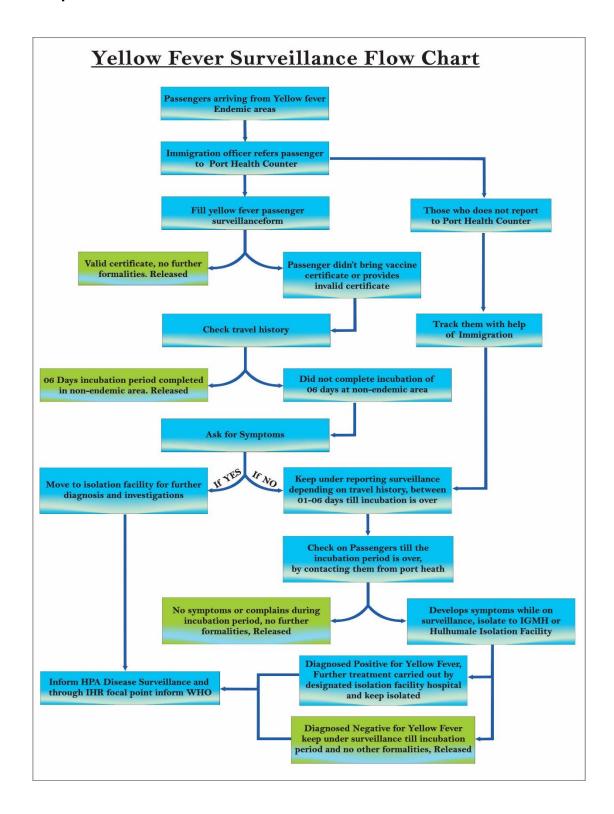
All crew and passengers arriving from Yellow Fever endemic areas must be screened at designated points of entry or onboard the vessels.

- Immigration officials at designated entry points must send all persons (passengers, crew, VIPs, VVIPs, diplomats, personnel of armed forces) arriving from Yellow Fever endemic areas (Annex below with the WHO link), persons holding passports of Yellow Fever endemic countries, persons who have visited Yellow Fever endemic areas within six days prior to arrival and persons who resided in Yellow Fever endemic areas to the port health unit at the designated PoE.
- Persons from Yellow Fever endemic areas must produce a valid certificate of vaccination or prophylaxis in order to enter Maldives without further regulatory procedures.
- This includes all persons who have visited countries with risk of Yellow Fever transmission within 6 days prior to arrival, including airport transits more than 12 hours and transits involving entry into the country (stepping outside the international airport).
- Persons who have spent a period of six days at a non-endemic area (equivalent to the incubation period of the disease) would be granted entry without further delays after confirming their travel history.
- Vaccination certificate must be produced by all mentioned in (3.2.2 section)

- Vaccination is exempted for all persons mentioned in (1 Vaccination Exemption section)
- Persons contraindicated to get the vaccination shall be kept under reporting surveillance conditioned to report any feverish or other symptoms to port health and authorized authorities.
- Persons who do not meet the requirements shall fill the "Yellow Fever Surveillance Form" and be further screened for signs and symptoms of the disease and granted entry given that he/she does not have any signs or symptoms of the disease, conditioned to report under surveillance until the incubation period is over.
- Persons who show sign and symptom of the disease (Section 5.2-point number 8) to must be isolated for diagnostic investigations.
- Persons who are positive will be kept quarantined at a designated place until transfer is arranged by HPA's Focal point.
- Daily report of all port unit shall include minimal surveillance data required for monthly and annual report compilation. Such daily completed data shall be reported to surveillance section of HPA using e-mail and attending shift senior port health officer. Hence a standard reporting format shall be used.
- Surveillance role by port health officers is to be overseen and supervised by senior staff and unit head of each unit, and section head of IBH.

5.1 Surveillance Structure at PoE

5.1.1 Airports



5.2 For travelers placed under Yellow Fever Surveillance, the following shall apply.

- 1. Port health officials must interview the traveler on arrival based on the yellow fever surveillance form/form (Annex1)
- 2. Traveler information must be documented using the yellow fever surveillance form/form (Annex1)
- 3. These travelers must be educated about the symptoms and measures to prevent Yellow Fever (May Be advise use of Insect repellent at their own cost)
- 4. Leaflet with information on Yellow Fever with directions to report when under surveillance must be given to the travelers.
- 5. The traveler must be monitored under yellow fever surveillance by the respective Port Health unit based at the entry port (the monitoring of a traveller for development of Yellow Fever symptoms for a maximum of six days)
- 6. Port health hotline (+960 7954333) must be notified if any symptoms develop indicative of yellow fever in the six-day period following the departure from a declared yellow fever risk area. Such passengers are advised not to walk in to health facilities but make sure any health facility nearby is informed along with travel history as such that a family member or standby person could be used for help. Usually at Midnight such passengers shall ring a health facility nearby.
- 7. Port health officials will be collecting Yellow Fever monitoring card at the last day of monitoring (this may be via Fax or email)
- 8. Relevant travelers with waiver letter and those who have been granted entry into the country by immigration, must be given detailed advice on Yellow Fever illness and protection against mosquito bites by the port health officials, the symptoms are:
 - a. Sudden onset of fever, shivers
 - b. Headache, muscle pain with prominent backache, abdominal pains with vomiting
 - c. Nausea or vomiting
 - d. Loss of appetite
 - e. Jaundice and

- f. Bleeding from the mouth, nose, eyes or the stomach and/or blood in vomit or feces.
- 9. Travelers placed under Yellow Fever surveillance must also
 - Sign the monitoring card to certify that the information they have provided is true and that they subject themselves to quarantine surveillance and
 - Notify health authorities if they develop any symptoms of yellow fever in the six-day period following their departure from a declared yellow fever risk area.
- 10. Anyone suspected or confirmed as having yellow fever must be referred to suitable medical facility by Port Health Officer or respective Public Health Officer.

5.3 Reporting of surveillance information.

Yellow fever remains as one of the diseases constituting a public health emergency of international concern in the IHR (2005). According to the Regulations the local health administration is required to notify the WHO about any case of yellow fever within 24 hours of assessment.

A person arriving from Airline or Ship and suspected for yellow fever is a

5.4 Communication and coordination

- If a person is released under surveillance, Port health unit will follow up the passenger.
- During the period of under surveillance, if the passenger develops any symptoms mentioned above, must notify to port health at any time as soon as possible.
- Meanwhile port health officers on duty must communicate with Health Protection Agency's disease surveillance unit to follow up the reported case and evacuation has to be arranged.
- Once the patient is evacuated the Health Protection Agency and the referred hospital shall take all the relevant responsibility to treat and prevent the spread of disease. (no role for port health after evacuation).
- Tourist establishments shall assist the health authorities in circumstances such as identifying and screening of passengers that might have gone undetected at PoEs for any reason.
- If a passenger from an area with risk of Yellow Fever is released undetected, the health shall contact the tourist establishment or directly contact the passenger given the circumstance.

5.5 Evacuation

- If a person under surveillance for Yellow Fever develops signs and symptoms of the disease, that person shall be evacuated to IGMH or Hulhumale' Hospital isolation facility.
- For locals and expatriate workers transport to the isolation facility shall be arranged by the local authorities (island/city council) and in the case of tourists the tourist establishment shall facilitate the evacuation.

5.6 Quarantine facility

- Confirmed cases shall be quarantined at a facility designated by the Health Protection Agency.
 - The facility should be at a place where mosquito control measures are applied.
 - The facility must be isolated and kept as an access restricted area.
 - The facility must be furnished and facilitated with essential personal use equipment.
 - The facility shall be equipped with necessary equipment for treatment and medical care.
 - The Health Protection Agency shall be responsible for the expenses of keeping a person under quarantine (Food, personal hygiene materials etc.)

Annex 1

Yellow Fever endemic areas

			AFRICA		
01	ANGOLA	11	EQUATORIAL GUINEA	21	MAURITANIA
02	BENIN	12	ETHIOPIA	22	NIGER
03	BURKINA FASO	13	GABON	23	NIGERIA
04	BURUNDI	14	GAMBIA	24	SENEGAL
05	CAMEROON	15	GHANA	25	SIERRA LEONE
06	CENTRAL AFRICA	16	GUINEA	26	SOUTH SUDAN
	REPUBLIC				
07	CHAD	17	GUINEA-BISAAU	27	SUDAN
08	CONGO	18	KENYA	28	TOGO
09	CÔTE D'IVOIRE	19	LIBERIA	29	UGANDA
10	DEMOCRATIC	20	MALI	-	-
	REPUBLIC OF THE				
	CONGO				

	SOU	TH AME	RICA
01	ARGENTINA	80	PANAMA
02	BOLIVIA (Pluractional State Of)	09	PARAGUAY
03	BRAZIL	10	PERU
04	COLOMBIA	11	SURINAME
05	ECUADOR	12	TRINIDAD & TOBAGO (Trinidad only)
06	FRENCH GUIANA	13	VENEZUELA (Bolivarian Republic Of)
07	GUIANA / GUYANA	-	-

Annex 2 Yellow Fever Passenger Surveillance Card



INTERNATIONAL BORDER HEALTH HEALTH PROTECTION AGENCY MINISTRY OF HEALTH

FORM DSF/01

YELLOW FEVER PASSENGER SURVEILLANCE

The information you provide will assist the public health authorities to manage the public health events, to trace passengers who may have been exposed to communicable disease, and to make arrangements to provide early treatment for them while safe guarding others around them.

All Information provided is confidential and will be used only for public health purpose.

A-PERSONAL INFORMAT	TION			555	0/2	
FULL NAME						
NATIONALITY	х 🗆 м	□F	PASSPORT NUMBE	ER C	DATE OF BIRTH	
PLACE OF RESIDENCE (ci	ty/state/count	.A)				
ARRIVAL DATE		Ť	FLIGHT NUMBER		LENGTH OF STAY	
					DEPARTURE DATE	
ADDRESS IN MALDIVES		PUPO	RSE OF STAY			
			oliday Rusiness	Official	☐ Employment	Transit
			onday 🗆 Business	Official	□ Employment	Transit
			Other (specify)			
B-YELLOW FEVER VACO	INATION STAT	US				
RECEIVED YELLOW FEVE	RVACCINATIO	N VES	/ COMPLETE VACC	INATION DET	TAUS) NO 1 (GO	TO SECTION C)
			90.00			V8
DATE OF VACCINA	TION	L	OT/BATCH NO		VACCINATION C	OUNTRY
C- UNVACCINATED PASS	FNGFR OR 6 F	AYS INC	OMPLETE AFTER VA	ACINATION		
COUNTRIES VISITED IN T						
					MS IN THE PAST 06	_
SUDDEN ONSET OF F						□ NAUSEA,
☐ GENERAL BODY ACH I hereby declare that					FATIGUE	
in this form is true to		and the second		SIGNAT	URE	
REMARKS:						
D-NUMBER OF DAYS UN	DER SURVEILL	ANCE (TI	CK WHEN REPORTE	D)		l l
Days DA	\Y 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
						1
NAME OF PORT HEA	LTH OFFICER		DESIGNATION		SIGNATU	RE

Annex3: Yellow Fever Self-Monitoring Card

	INTER	RNATIONAL BORDER HEALTH UNIT
	Self Monitoring Table	for passengers under Yellow Fever surveillance
The i	, a 10 4 Control of the Control Hermiteles (19 1) and	held by the public health authorities to be used only for public health purpose.
Name:		
Nation	ality:	Passport No:
Countr	ries visited:	
Date o	f leaving the Vallow Fever	endemic country:
it you d	develop any of these other sy	ymptoms
	Diarrhoea	
	Fever	
	Vomitting	
	Abdominal pain Rash	
	Headache, sore throat	
	Juandice	
	Cough, shortness of breath	
	Tender lumps	
>	Please mark (NIL) if no sym	ptoms are found.
>	If any symptom develops ple	
	Date	Symptoms (1-9 or NiL)
Day 1		
Day 2		
Day 3		
Day 4		
Day 4 Day 5		
-		

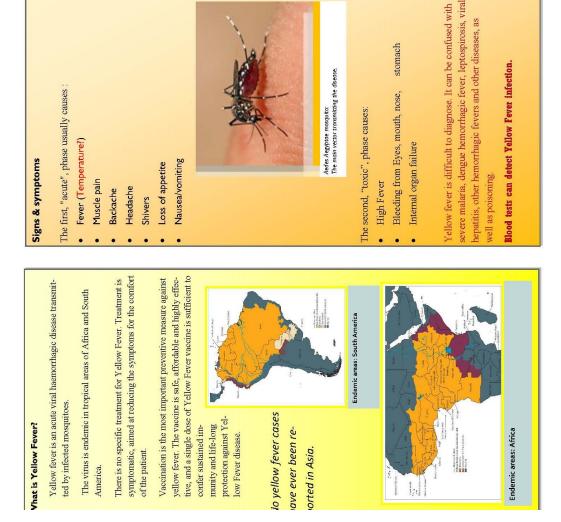
Annex 4: Yellow Fever Information Leaflet





stomach

Aedes Aegyptae mosquito: The main vector transmitting the disease.



Annex 5: International Certificate of vaccination or prophylaxis

OR PROPHYLAXIS			OU DE PROPHYI			
The section				[nom]		
ate of birth	sex		né(e) le	de sexe		
ationality			et de nationalité			
ational identification docu	ıment, if app	licable	document d'identific	ation national, le cas é	chéant	
hose signature follows.			dont la signature suit			
as on the date indicated b gainst: (name of disease or c	ondition)		indiquée contre: (n	a reçu des agents pro om de la maladie ou Règlement sanitaire i	de l'affection)	
as on the date indicated b gainst: (name of disease or c 	ondition) aternational Date	Health Regulations. Signature and professional status of supervising	indiquée contre: (n	a reçu des agents pro om de la maladie ou Règlement sanitaire i Certificate valid from:	de l'affection) nternational. Official stamp of the	
as on the date indicated b gainst: (name of disease or c	ondition) iternational	Health Regulations. Signature and professional status of supervising clinician	conformément au l Manufacturer and batch no. of vaccine or prophylaxis	om de la maladie ou Règlement sanitaire i Certificate valid from: until:	de l'affection) nternational. Official stamp of the administering centre Cachet officiel du	
as on the date indicated b gainst: (name of disease or c n accordance with the In Vaccine or prophylaxis Vaccin ou agent	ondition) aternational Date	Health Regulations. Signature and professional status of supervising	conformément au l Manufacturer and batch no. of vaccine or	om de la maladie ou Règlement sanitaire i Certificate valid from:	de l'affection) nternational. Official stamp of the administering centre	
as on the date indicated b gainst: (name of disease or c n accordance with the In Vaccine or prophylaxis Vaccin ou agent	ondition) aternational Date	Health Regulations. Signature and professional status of supervising clinician Signature et titre du	indiquée contre: (n conformément au l Manufacturer and batch no. of vaccine or prophylaxis Fabricant du vaccin ou de l'agent prophylactique	om de la maladie ou Règlement sanitaire i Certificate valid from: until: Certificat valable à partir du :	de l'affection) nternational. Official stamp of the administering centre Cachet officiel du	

Reference

http://www.who.int/ith/ITH_chapter_6.pdf?ua=1

http://www.chp.gov.hk/files/pdf/prevention_of_yellow_fever_in_hong_kong_r.pdf

http://www.dfa.gov.za/consular/2013/yellow_fever0806.pdf

http://mohfw.nic.in/WriteReadData/1892s/9642270354Advisory.pdf

http://www.who.int/mediacentre/news/releases/2013/yellow_fever_20130517/en/