DELINEATION OF THE YELLOW FEVER ENDEMIC ZONE IN THE AMERICAS

I. The first delineation of the yellow-fever endemic areas throughout the world was made by the United Nations Relief and Rehabilitation Association (UNRRA) in 1945 and 1946.

The Yellow Fever Panel of the World Health Organization, at its first session (1-6 December 1949), recommended that the UNRRA delineation should be maintained, with some exceptions, for the purpose of quarantine control of yellow fever (under the 1933/44 Conventions). Its recommendations were based, as regards America, on reports of clinical cases, on results obtained from routine viscerotomy (i.e., examination of liver specimens taken from all persons dying after a febrile illness lasting 10 days or less) and from immunity surveys of human and animal sera, and on the reporting of low Aedes aegypti indices. The recommendations of the Panel were accepted by the Executive Board at its fifth session, and by the third World Health Assembly.

As a result, on the entry into force of the International Sanitary Regulations, the delineation of the yellow-fever endemic area in the Americas was as follows:

This area was bounded by a line beginning on the Pacific Coast of Colombia at the 5° N. parallel of latitude and extending east along that parallel of latitude to the eastern slopes of the Central Cordillera to an elevation of 2,000 metres; thence southwards along the eastern slopes of the Central Cordillera and the Andes

1 Off. Rec. World Hlth Org. 25, 5
2 Off. Rec. World Hlth Org. 28, 22
Mountains, at the same elevation to the boundary of Bolivia and Argentina; thence eastwards and northwards along the southern and eastern boundaries of Bolivia to the 15° S. parallel of latitude; thence eastwards along that parallel of latitude to the western boundary of the State of Goias; thence northwards along that boundary and the western boundary of the State of Maranhao to the Atlantic Coast; thence along the Atlantic and Caribbean coasts of America to the eastern boundary of Costa Rica; thence along that boundary to the Pacific Coast and thence along the Pacific Coast of Panama and Colombia to the 5° N. parallel of latitude. In addition, the Ilheus and Itabuna Districts in the State of Bahia in Brazil bounded on the north by the River Contas, on the west by the 40° W. meridian of longitude, on the south by the River Pardo and on the east by the Atlantic Ocean were included in the endemic yellow-fever area. The ports of Belem and Manaos in Brazil, Cayenne in French Guiana, Paramaribo in Surinam, Georgetown in British Guiana, the Caribbean ports of Venezuela and Colombia, the cities of Caracas in Venezuela and Bogota in Colombia, together with the ports of the Republic of Panama and the Panama Canal Zone were excluded from the endemic yellow-fever area. The continued exclusion of these ports and cities was, however, contingent on their maintenance of an Aëdes aegypti index not exceeding 1%, as reported quarterly to WHO.

II. The Fourth World Health Assembly, in adopting the International Sanitary Regulations, decided, by the provisions of Article 70 of the Regulations, that:

1. Each yellow-fever endemic zone and yellow-fever receptive area shall be delineated by the Organization in consultation with each of the health administrations concerned, and may be altered similarly from time to time. These delineations shall be notified by the Organization to all health administrations.

2. When a health administration declares to the Organization that, in a local area which is part of a yellow-fever endemic zone, the Aëdes aegypti index has continuously remained for a period of one year below one per cent, the Organization shall, if it concurs, notify all health administrations that such local area has ceased to form part of the yellow-fever endemic zone.

III. At the same time, the Fourth World Health Assembly adopted the resolution WHA4.83 which stated:
"Considering that the definition of yellow-fever endemic zones, contained in the International Sanitary Regulations (WHO Regulations No. 2) is based on the presence of Aëdes aegypti and the persistence of the virus among jungle animals over long periods of time,

Considering also that, owing to vaccination campaigns and other causes, immunity in man to yellow fever, as detected by the mouse protection-test, is to be found beyond the limits of yellow-fever endemic zones as so defined,

The Fourth World Health Assembly

INVITES the Executive Board and the Director-General to make the necessary arrangements for the study and definition of technical criteria required for the delineation of yellow-fever endemic zones as defined in WHO Regulations No. 2."

The results of this study are given in another document. However, new technical criteria cannot be taken into consideration for the delineation of yellow-fever endemic zones until after appropriate amendment of the International Sanitary Regulations.

IV. As a WHO survey of immunity tests in Africa was not completed in time to permit a meeting of the Expert Committee on Yellow Fever to be held before the entry into force of the International Sanitary Regulations, the Director-General, appreciating that a delineation of the yellow-fever endemic zones was necessary for the control of yellow fever in international traffic, decided to take over provisionally, for the purposes of the Regulations, the delineation made under the 1933/44 Conventions. This decision was notified to all Member States in a Circular Letter No. 18 of 17 June 1952, and published in a Supplement to the Weekly Epidemiological Record No. 300 of 25 September 1952.

V. The attention of the Committee is called to the fact that several countries and territories have undertaken extensive Aëdes aegypti eradication campaigns since the delineations were made under the Conventions and that their position as regards endemcity to yellow fever as defined in the Regulations has consequently been altered.

1 WHO/YF/11
2 WHO/YF/9
VI. In application of Article 70 (paragraph 1), notifications have been received from governments with respect to territories in the Americas which the health authority considered to be excluded from a yellow-fever endemic zone under the International Sanitary Regulations. They were published in the Weekly Epidemiological Record as follows:

**Brazil**

"The Government of Brazil has notified the Organization that the whole territory of Brazil is considered to be a country situated outside a yellow-fever endemic zone as defined in the International Sanitary Regulations (WHO Regulations No. 2)."

(REH No. 328, 10 April 1953)

**British Guiana**

"The Government of the United Kingdom has notified the Organization that all the land between the Pomeroon River and the Corentyne River Estuary to a depth of 12 kilometers from the coastline and extending up the Corentyne Estuary to include Skeldon; in the Berbice River Estuary extending to and including Everton; and in the Essequibo Estuary extending to and including Bartica; in the Demerara River Estuary extending to and including Atkinson Field and up the river to include the Mackenzie-Wismar area is considered to be situated outside a yellow-fever endemic zone as defined in the International Sanitary Regulations (WHO Regulations No. 2)."

(REH No. 333, 5 May 1953)

VII. The Committee is requested to make recommendations for the delineation of the yellow-fever endemic zone in the Americas. These recommendations will be transmitted to the Committee on International Quarantine, one of the functions of which, by decision of the Sixth World Health Assembly, is the establishment for quarantine purposes of the delineations required under Article 70 of the International Sanitary Regulations.

---

1 Resolution WHA6.20
For the convenience of the Committee, the two following maps are attached:

(a) Map of the yellow-fever endemic area in America\(^1\) delineated under the 1933/44 Conventions, showing the areas for which a notification of, or a request for exclusion has been received;

(b) Map of jungle yellow fever in Central and South America,\(^2\) cases and deaths, notified in 1950, 1951, 1952 and 1953 (up to 31 July).

---

\(^1\) WHO Map 3263

\(^2\) WHO Map 3377 (a)