

It would be a significant step forward if other countries in the Region of the Americas were to follow the example of the Cancer Registry of Puerto Rico.

According to the available data, cancer registries exist in Costa Rica, Cuba, Jamaica, Peru (Lima), and Brazil (São Paulo), although no information is available on periodical publications of these registries.

The major environmental changes occurring in Latin America are reflected in an increase in the incidence of certain types of cancer. Moreover, because of the constant changes observed in the structure of the population pyramid in the Hemisphere, it is essential to record basic data on cancer as a basis for comparative and epidemiological studies on the disease.

Dengue in Mexico and in the United States, 1980

The latest dengue pandemic in the Caribbean began in 1977 and took the form of extensive epidemic outbreaks in many of the islands, including Puerto Rico.

The Caribbean epidemics probably resulted in the introduction of dengue into southeastern Mexico in 1978. In that year and in 1979 dengue spread northward through Mexico. In October and November 1979 epidemic outbreaks occurred in the vicinity of the city of Tampico, located on the coast of the Gulf of Mexico at a distance of some 480 km south of the border with the United States.

In June 1980 six Mexican communities along the border had reported cases of dengue.

The large number of travelers between Mexico and the United States and the prevalence of *Aedes aegypti*—the vector of the dengue virus—in both countries create the conditions needed for introducing the infection into the United States. There are large *A. aegypti* populations in Texas, Louisiana, Mississippi, Alabama, Georgia, Florida, North and South Carolina, Tennessee, and Arkansas. The areas of the United States most exposed to the introduction of dengue from Mexico include communities in southern Texas and cities along the Gulf Coast at which many travelers from Mexico arrive.

In Mexico *A. aegypti* is found in Chiapas, Quintana Roo, Oaxaca, Veracruz, Tabasco, and Campeche, as well as along the Gulf Coast and in the northeast. The epidemiological information available suggests that, starting with the Caribbean epidemic, dengue penetrated the southern part of the country through Belize and Guatemala in November 1978 and that in 1979 the disease was active in various states in southern Mexico. In 1979 some 3,000 cases were reported.

A study carried out in mid-February 1980 by the Ministry of Health and Welfare of Mexico (SSA) and the

U.S. Communicable Disease Control Centers (CDC) confirmed the presence of dengue in Tampico and verified the northward movement of the disease. In Tampico 13 of 198 serum samples provided serologic evidence of recent dengue infections. Entomological studies showed that between 12 and 27 per cent of the cases in two areas of Tampico had *A. aegypti* larvae. The season of the study (February) was a relatively cool and dry one in Mexico, and it was expected that the arrival of the rainy season would bring a substantial increase in the mosquito population.

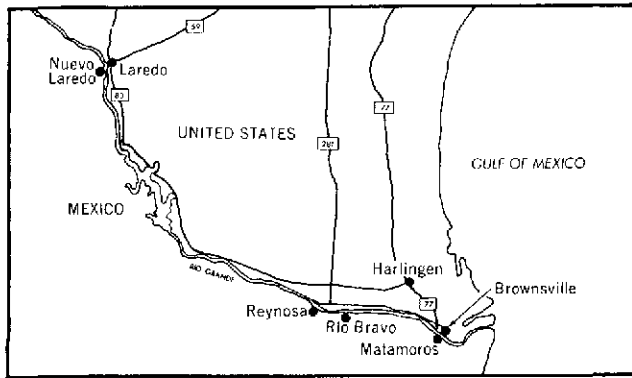
In the final week of June 1980 clinical cases of dengue-like illness began to be reported in Montemorelos, an agricultural community 85 km from Monterrey (Nuevo León) in the northeast. The SSA sent a team of experts to the region to evaluate the problem. Infection with dengue virus was confirmed serologically in 29 out of 31 convalescent patients. Larval and adult specimens of *A. aegypti* were found in the vicinity and inside the dwellings of most of the patients living in those parts of the city most affected by the disease and in a smaller number of dwellings (and their surroundings) located in city areas where a few cases had occurred.

According to information in the *Border Epidemiological Bulletin* (PAHO), between September and November 1980 the number of reported cases of dengue in Mexican communities located along the border with the United States was as follows: 151 in Matamoros, 326 in Nuevo Laredo, 400 in Piedras Negras, and 5,146 in Monterrey.

In September 1980 the CDCs reported the first case of transmission of dengue into the continental territory of the United States since 1945. The patient, from whom dengue virus type I was isolated, lived in Brownsville, Texas.

At the end of September local and state health author-

Figure 1. Localities on the Mexico-United States Border where cases of dengue were reported in 1980.



ities made a survey of dengue in two districts of Brownsville. Five persons of the 63 families interviewed in the patient's district had medical histories of dengue-like illness and one person out of 77 families interviewed in the other district. Serum was taken from the patient and her family. Only the patient and an elder sister had antibodies suggesting a recent dengue infection.

In November 1980 the CDCs reported 10 additional cases of dengue infections in residents of communities in the Rio Grande valley in Texas. None of the patients had visited Mexico during the period in which they had contracted the infection. Eight lived in Brownsville, two in Laredo, and one in Harlingen (Fig. 1). The dengue virus was isolated in seven of these patients. The infection was confirmed serologically in the others. Ten were identified through a surveillance system initiated by local and state health departments to detect dengue cases. The remain-

Figure 2. Trends in *Aedes aegypti* activity, by geographic zones, United States, 1980.

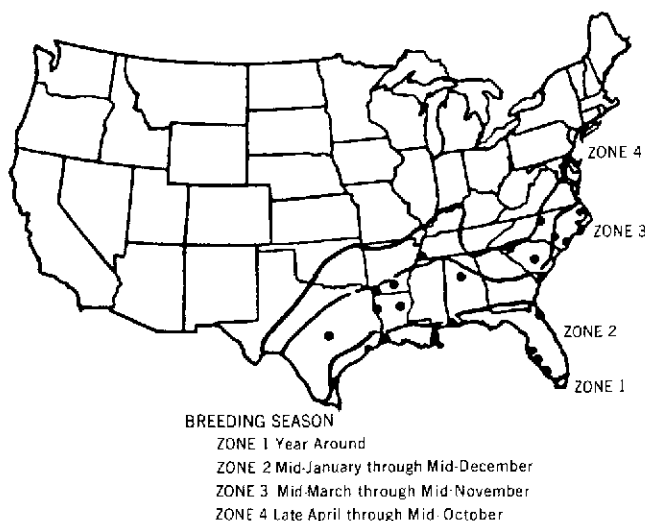
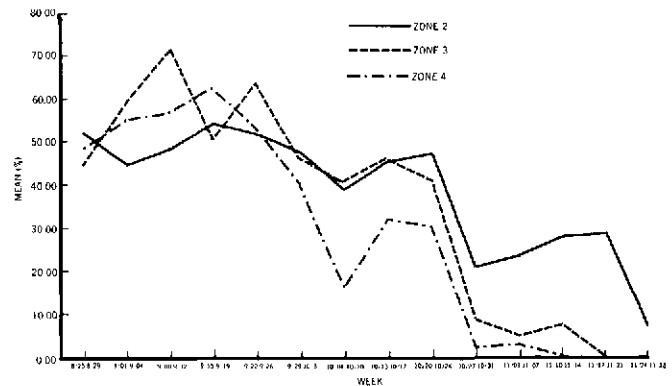


Figure 3. Average per cent positive ovttraps for selected cities in geographic zones of *Aedes aegypti* breeding, by sampling week.



ing case was identified during the survey in Brownsville made after the recognition of the first case.

The delimitation of zones in Figure 2 is based on an analysis of certain climatic factors that limit the distribution of mosquito species.

Figure 3 shows trends in *A. aegypti* activity during collection periods occurring between the end of August and October according to geographic zones. The data utilized were selected from the cities (identified in Fig. 1) considered as representative of the respective geographic zones and that had provided regular reports on ovttraps. *A. aegypti* populations in these cities, measured as the percentage of positive ovttraps, tend to fall from August to October, registering a greater and earlier decline in the northern populations. Oviposition in zones 3 and 4 apparently ceased in winter. Oviposition in zones 1 and 2 is expected to continue at low levels through the winter.

(Sources: *Morbidity and Mortality Weekly Report*, Volume 29:75, 169, 407, 481, and 531, 1980; Centers for Disease Control, *Dengue Surveillance Summary*, 8 and 12, 1980, and PAHO *Border Epidemiological Bulletin* 8, 1980.)

Editorial Comment

In January 1981 a meeting was held at the CDCs to examine the dengue situation on the Mexico-United States border. It was attended by representatives of Mexico, CDCs, the State of Texas, and PAHO. In total, some 50,000 dengue cases were reported in Mexico in 1980 and during the winter it reached as far as Veracruz in the course of its northward dissemination. In Texas 48 cases were confirmed, but none were reported after 1 November. According to surveys made in Tampico, Mérida (Yucatán), and Brownsville a count of the containers in

each dwelling should make it possible to effectively determine the localities at risk.

There are a number of important factors in planning dengue campaigns, among which is the adoption of a system for the rapid transmission of information. This indicates the need for developing a new method of diagnosis in addition to serologic examinations and virus isolations. Other factors include studies on methods of

educating the public, particularly with a view to assisting teachers in keeping their students informed; training of health personnel; and mosquito surveillance and control. The latter depend on the funds available at the local level.

Further meetings, seminars, and training programs have been planned.

Influenza in the Americas, 1980-1981

In 1980 and so far in 1981 influenza epidemics have been reported in three countries of the Americas: United States, Canada, and Mexico. The predominant strain is A/Bangkok/79 (H3N2), which is similar to A/Bangkok/79 and has not yet been assigned an official name.

United States (as of 2 January 1981): Since November 1980 strains of A/Bangkok/79 (H3N2) have been isolated in 16 states and in the District of Columbia. Mortality due to pneumonia and influenza has exceeded epidemic limits for three consecutive weeks. As of 13 December, nine states (Alaska, Arizona, California, New Jersey, New Mexico, North Carolina, North Dakota, Texas, and Wyoming) had reported localized epidemics; New York reported scattered epidemics. Almost all the other states have reported sporadic episodes of influenza.

Since mid-November most of the epidemic outbreaks have affected individuals in schools and in homes for the elderly.

Canada (as of 6 December 1980): In November an epidemic outbreak of influenza occurred at a home for the elderly (with 150 beds) in Portage-la-Prairie, Manitoba (three deaths). The epidemic occurred as an immunization campaign against the disease was being carried out. On 3 November all the residents in one section of the home (63) had been vaccinated when the epidemic broke out in another section. Of 53 persons who contracted influenza, 13 had been vaccinated. The three deaths (apparently due to pneumonia) were of persons who had not been vaccinated. The influenza virus isolated was antigenically similar to A/Bangkok/1/79.

The large increase in influenza cases in Manitoba led to an increase in the number of hospital admissions for severe illness and pneumonia and to many school absences.

In Toronto an influenza virus antigenically similar to

A/Bangkok/1/79 was isolated in a sample obtained from a laboratory technician.

Mexico (as of 31 October 1980): Strains of A/H3N2 influenza virus were isolated in seven individuals whose age varied between 5 and 60 years. The strains were identified as being similar to A/Bangkok/1/79 (H3N2).

Recommendations. The U.S. Centers for Disease Control recommend the following preventive measures against influenza:

1. The annual vaccination of all those exposed to the highest risk of complications because of infections of the lower respiratory system is strongly recommended. Diseases that increase the risk are:

- Congenital or acquired cardiac diseases associated with changes in circulation dynamics.
- Chronic diseases involving the pulmonary function.
- Chronic kidney disease with azotemia or nephrotic syndrome.
- Diabetes mellitus and other metabolic diseases with a high risk of infection.
- Severe chronic anemia.
- Conditions affecting the immunity system, including certain neoplasms and immunosuppressive therapy.

2. Vaccination of persons of advanced age especially those over 65 years.

The present influenza vaccine consists of inactivated preparations of three antigens: A/Bangkok/79 (H3N2), A/Brazil/78 (H1N1), and B/Singapore/79.

(Sources: *Morbidity and Mortality Weekly Report* 29:225-228 and 615-616, 1980; *Canadian Disease Weekly Report* 6:49, 1980, and *WHO Weekly Epidemiological Record* 55:368, 1980.)