

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.)

## Editorial Comment

Because of antigenic changes in the virus, influenza vaccine should be prepared annually on the basis of worldwide data from WHO on strains in circulation.

The Advisory Committee on Immunization Practices of the U.S. Public Health Service meets each January to review the data available on worldwide movements of influenza viruses. According to the strains in circulation recommendations are made on the antigenic composition of the vaccine to be used in the next influenza season. The Committee's recommendations are forwarded to vaccine manufacturers who produce and test the new vaccine in time for distribution at the end of July or in early August. By November or December most of the production has been purchased and distributed for use.

As a general rule, but not invariably, new influenza strains are first discovered in the Far East and the presence of the virus in Australia during the winter months (May-July) indicates that in the succeeding months the virus will be disseminated northward in the temperate climate countries. In the Americas the Far Eastern strains usually appear initially in the southern temperate climate countries and advance in the direction of the northern hemisphere in subsequent months. Thus in temperate climate countries such as Argentina, Chile,

Uruguay, Paraguay, (southern) Brazil, Bolivia, and Peru the influenza season frequently corresponds to the summer production cycle of vaccine in the United States.

With the exception of the United States and Canada, no country in either the tropical or temperate zones consider influenza surveillance or vaccination as one of the priorities of the health sector. For those countries (except the U.S. and Canada) wishing to carry out influenza vaccination campaigns, there are two options:

1. Convene their own advisory groups each year to examine the worldwide epidemiological data provided by WHO on strains in circulation and make their own recommendations on the local production of vaccine for the subsequent year.

2. Purchase vaccine produced in the United States or in Europe in August on the assumption that no antigenic change will occur before the next local influenza season in May-July of the following year.

For most of these countries the options at present are neither practical nor acceptable. In the absence of any other epidemiological information on the circulation trends of the influenza virus it is not possible to make recommendations on the approach that should be adopted to routine vaccination against influenza in tropical and temperate countries.

## Status of Leprosy in Rio Grande do Sul, Brazil, 1979

### Incidence

In 1979, 222 new cases of leprosy were diagnosed in Rio Grande do Sul, Brazil, representing an incidence of 2.73 cases/100,000 population. The State is located in the southeast of the country, and it has 232 municipalities and 7,665,372 inhabitants. The active register of cases also included nine patients from other states and six individuals who had a recurrence of the disease, making a total of 237 cases in 1979.

Among the new cases, there was a marked predominance of more advanced ages; no case occurred in children under five years and only 10 cases occurred in the under-15 age group (Fig. 1). The distribution by sex showed a slightly higher incidence among females (112 against 110 male cases). Of the contagious forms of

leprosy (lepromatous and dimorphous), 74 occurred in men and 56 in women.

Of the total of 237 cases registered, the most frequent clinical forms were lepromatous (43.9 per cent) and tuberculoid (28.7 per cent). As for the detection of the disease the majority of cases (55) were discovered during medical consultations (50.6 per cent), while 23 (18 per cent) were reported cases (Table 1).

### Prevalence

On 31 December 1979, 3,195 cases of leprosy had been registered in Rio Grande do Sul, representing a prev-