Viral Diseases

Viral hepatitis had its maximum recorded attack rates in Dominica (140) and Grenada (110).

Influenza rates ranged from 2.5 in Dominica to 3,500 in Suriname. This wide range, without laboratory confirmation in most cases, suggests that acute, noninfluenza respiratory illness may have been included in some reports. The 1981 epidemic of acute hemorrhagic conjunctivitis ("red eyes"), which affected 10 countries, was over by 1983, and only Grenada and Trinidad and Tobago reported cases.

Rubella was reported by most countries, with the highest rate being recorded in St. Vincent and the Grenadines (130). The 1982 epidemic in Grenada (which produced a rate of 640) was followed by 20 cases of congenital rubella syndrome in 1983, seven of them fatal.[3]

Mumps is not a reportable disease for CAREC, but mumps virus was isolated from 11 patients hospitalized in Trinidad for meningitis and encephalitis.

Other Diseases

The highest rates of gonococcal infections were reported from the Turks and Caicos Islands and the Cayman Islands (where the estimated rates were 2,600 and 2,200, respectively); and the lowest were reported from Guadeloupe (a rate of 14).

Syphilis rates ranged from an estimated 3.9 in Antigua and Barbuda to an estimated 3,800 in Montserrat.

Meningococcal infections were reported from nine countries, the number of recorded cases ranging from one to 11 except on Cuba, where an estimated 850 cases were reported.

The prevalence rate of leprosy, among the 11 countries reporting cases, ranged from 13 in Barbados to 160 in Saint Lucia and 200 in the Turks and Caicos Islands.

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Note: Comparison of 1983 reported diphtheria and measles attack rates in Haiti and the Dominican Republic, which have populations of similar size and share the same island, shows that the rates in Haiti were less than one-third as great as those in the Dominican Republic, although DPT and measles immunization coverage in Haiti was much lower. This suggests considerable underreporting of these two diseases in Haiti.

It would be interesting to know the age distribution of subjects with pertussis in Dominica and tetanus in Barbados, since those countries have relatively high attack rates for these diseases in the face of reasonably good vaccine coverage. The explanation for this could be that the cases occurred in children born before vaccination coverage reached its current levels. The tetanus rate in Barbados in each of the years 1981-1983, when DPT immunization coverage was 59% or more, points to a total of 18 affected subjects, many of whom may not have been newborns.

Only four countries (Barbados, Cuba, Grenada, and Guyana) had house indexes of *Ae. aegypti* larvae below the 5% level generally considered to represent the point below which epidemic transmission is unlikely to occur.

[3]See World Health Organization, *Weekly Epidemiological Record* 59(11):79-80, 1984.

Source: Caribbean Epidemiology Center, Review of Communicable Diseases in the Caribbean, 1983, as reported in the World Health Organization *Weekly Epidemiological Record* 60(30):229-232, 1985.

T-LYMPHOTROPIC RETROVIRUSES OF NON-HUMAN PRIMATES

An informal group of experts met in Geneva on 15 and 16 July 1985 to discuss recent findings concerning T-lymphotropic retroviruses of non-human primates and to advise the World Health

Organization about the significance of these agents and the need for international collaborative research in this field.

Several species of monkeys and apes, in the wild and in captivity, harbor retroviruses. Three exogenous retroviruses have been isolated recently from Old World primates: simian T-lymphotropic viruses (STLV) types I and III and Mason-Pfizer monkey virus (MPMV)-related agents. Included in the species that may be infected with such viruses are African green and Rhesus monkeys, the tissues of which are used for preparation of reagents and vaccines.

STLV I, STLV III, and MPMV-related viruses have been isolated from monkeys suffering from immunodeficiency diseases in several U.S. primate centers. STLV III is clearly distinguishable from human T-lymphotropic retroviruses but shares structural and antigenic properties. STLV III has recently been isolated from apparently healthy African green monkeys imported from Africa to the United States. Serologic studies of African green monkeys held in captivity in the United States and Europe or caught in the wild in Africa indicate that a proportion of these animals may be infected by STLV III. It is not known how long such viruses have been present in African green and Rhesus monkeys, but serologic evidence suggests that green monkeys in Africa may have harbored agents similar to STLV III for more than 20 years.

The group felt that the findings about simian T-lymphotropic retroviruses had the following implications for preparation and use of monkey kidney cell cultures:

- By analogy to their human counterparts, it is probable that the replication of simian T-lymphotropic viruses *in vitro* is restricted to lymphocytes. Monkey kidney cell cultures would be expected to contain few, if any, T-lymphocytes.
- During the 1970s representative bulk and final preparations of live polio vaccines prepared in African green monkey kidney cultures were tested for the presence of retroviruses by reverse transcriptase assays. In addition, primary monkey kidney cell cultures, including those from African green monkeys, were examined after chemical induction by electron microscopy for virus-like particles and for particle-associated reverse transcriptase activity. No evidence that retroviruses were present was obtained.
- Current tests of WHO poliovirus types 1, 2, and 3 vaccine seed stocks, as well as testing of more than 20 vaccine lots in Europe and North America, have failed to yield evidence of retroviruses.
- Long-term and continuing followup of recipients of live polio vaccine suggest the absence of adverse effects potentially associated with retrovirus.

The WHO group also concluded that studies of the molecular structure and biology of lymphotropic retroviruses from non-human primates offer unique models relevant to the study of the human counterpart viruses. They therefore recommended appropriate plans to make effective use of existing knowledge and outlined a coordinated program of research.

Source: World Health Organization, *Weekly Epidemiological Record* 60(35):269-270, 1985.

SMALLPOX VACCINATION AND CONTACT SPREAD OF VACCINIA VIRUS

Another case of vaccinia virus infection transmitted from a military-related person recently vaccinated against smallpox has been reported in the United States.

On 24 January 1985, a girl 15 years of age was referred to a dermatologist in a clinic at La Crosse, Wisconsin, for evaluation of an ulcerated lesion on her left upper lip. Examination of the patient revealed an ulcer 2 cm in diameter on the left upper lip, five oval vesicles 4 mm in diameter on the arms, and marked conjunctival infection of the left eye. The girl appeared mildly sick with low-grade fever, fatigue, and tender cervical lymphadenopathy. Vaccinia virus was cultured from the skin lesions.

As a child, the patient had received a smallpox vaccination but had never developed a reaction. She had no scar compatible with smallpox vaccination. After treatment with antibiotics and vaccinia immune globulin, the patient recovered.