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Dengue Hemorrhagic Fever in Cambodia and Health-Related Social Conditions — A Brief Observation

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It is not my intention to make an objective, unbiased and extensive report on dengue hemorrhagic fever in Cambodia; my observational period barely exceeds a month and my observation was restricted to Phnom Penh and a few neighboring provinces. On top of that, no reliable epidemiological data regarding this disease are available to this date.

With this reservation, I will try to analyze the situation related to dengue fever in that country.

1. Recent historical background

It is only fair to say that no valid assessment of public health in Cambodia is feasible without taking into account her genocidal experience which occurred under the Pol-Poto regime (1975-1979). Approximately one million people have perished during this period, majority being bureaucrats, skilled workers, teachers, monks and physicians. In 1975, about 600 physicians were working at hospitals, clinics, and a university. In 1979, only 40 odd physicians were alive. Medical students followed similar dismal fate with slightly less damage. It is easy to figure out that health care system in Cambodia simply ceased to exist and even now the effects of the historical trauma is painfully evident; there is an absolute shortage of experienced physicians throughout the country, not to mention nurses and other paramedical workers. The sequel of the Pol-Poto regime and warfare were not restricted to a health sector; millions of land mines are still buried in the seemingly fertile land hampering resumption of agricultural work.

However, no less profound aftermaths were political uncertainties and disrupted bureaucratic functions. Although a political reunification, if fragile, is claimed to have been achieved by the national election conducted with UN assistance this year, chaotic conditions in bureaucracy are still evident to outsiders. Systemic corruptions in bureaucracy are pervasive, partly due to low salary which ranges from 20 to 30 US dollars a month. At the Ministry of Health, some 150 people work in the morning, while a few remain in the afternoon because of the necessity to do their side job elsewhere to support the family. In addition, paucity of facilities impedes administrative function. For example, there was no fax machine in the Ministry in 1992.
2. Health system

In theory, the health sector in Cambodia has adopted a primary health care system like that of Thailand: a hierarchy starting from a health center at village level ascending to district hospitals, provincial hospitals and then up to tertiary hospitals in the capital. There are 19 provinces with two municipalities (Phnom Penh and Contom). Average population in a province is 350,000. There are 76 districts with average population of 40,000 in each. Doctor to population ratio remains low; one to 270,000 (one to 600 in Japan). Unlike Thailand, regional health services provided at district and provincial hospitals in Cambodia are inadequate for treating patients with DHF. Though a few hospitals located in Phnom Penh accept the patients, medical resources available there remain insufficient. There exists gross shortage of most basic medical equipments such as needles, disinfection devices, let alone essential drugs.

3. Environmental hygiene

The only effective prevention of DHF is eradication of its vector *Aedes aegypti*, in particular through the disruption of its reproductive cycle. It is common to see in rural Thailand that big jars to store water are covered with lid which effectively prevents proliferation of vector mosquitoes. No such hygienic practice was observed among the Cambodians.

4. Health education

Health level of a country has been often observed to be closely associated to the level of primary education rather than its economic level. With its compulsory primary education, literacy rate of the Cambodians remains around 60%. The lack of teaching materials is profound throughout the country. Only one out of twenty children has his or her own study desk. Fourth graders in three elementary schools in Phnom Penh attend only half-day classes because of the shortage of teachers. The selection system of the country may be biased to increase less motivated students if rumors that school enrollment is subject to bribe is true.

5. Epidemiology of DHF

DF/DHF is an endemic disease intervened with epidemic flare-ups in Cambodia as recorded in the neighboring countries such as Vietnam and Thailand. Its case mortality rate observed in Cambodia is unusually high, probably ranging from 5 to 10%. This may be explained on the ground that the health service system to deal with its complications such as circulatory collapse is barely available.

Currently, there is no nationwide statistical data as regards DHF. However, an ad hoc committee was established last year under the auspices of WHO/UNICEF in an attempt to collect basic epidemiologic data. A report is to be issued sometime this year.

In short, Cambodia is still suffering from the aftermaths of societal destruction inflicted by the Pol-Poto regime.