TOPICAL BIBLIOGRAPHIES
I. General bibliography


3. Abu Bakar Suleiman et al. Enterovirus 71 outbreak, Brunei. *Emerging Infectious Diseases* 15 (1):79-82, 2009. (Brunei had a large outbreak in 2006; the virus spread rapidly in the population.)


8. Ahmad, F. B. Medicinal plants used by the Kadayan community in Sarawak. *SMJ* 44 (65):45-57, 1993. (Some plants may have anti-malarial effects.)


11. Ahmad, F. B., M. Suleiman, and M. M. Yusoff. A survey of plants used in traditional medicine along the Sabah west coast. In *Borneo 2000: Environment, Conservation and Land*. M. Leigh, ed. UNIMAS, Borneo Research Council, Kuching, 2000. Pp. 441-443. (Community healers and market sellers in the Kota Kinabalu area were interviewed about the plants used in traditional medicine, such as Tongkat Ali and kacip Fatimah; more plant conservation in herbal gardens and arboreta was recommended.)


16. Alexander, J. The Lanahan of the Balui, 1963-2006. *BRB* 39:104-127, 2008. (After the Lanahan were displaced to Sungai Asap in 1999 as a result of the Bakun dam project in Sarawak, discontent arose; virtually the sole advantage of the relocation was improved access to clinics and hospitals.)

17. Alexander, J., and P. Alexander. Economic change and public health in a remote Sarawak community. *Sojourn* 8 (2):250-274, 1993. (On nutrition, maternal health, etc., in a Lahanan area at Long Pangai and L. Semuang, Balui River, Rejang watershed; officials discouraged shading fruit trees by the longhouse as being untidy; the authors recommended home vegetable plots and free seeds on demand; only teeth extraction was available locally for dental problems; older women tended to have rheumatism and arthritis.)

hill paddy; alcoholic drinks and betel chews are also discussed.)


28. Anonymous. Promotion of adolescent reproductive health and healthy living. *Adolescence Education Newsletter* 2 (2):10 only, 1998. (In Sabah a youth clinic was established within the clinic network during a three-year project.)

730, 2001. (On leptospirosis.)


34. Appell, G. N. Community resources in Borneo. Failure of the concept of common property and its implications for the conservation of forest resources and the protection of indigenous land rights. *Yale Forestry Environmental Studies Bull.* 98:32-56, 1995. (Discusses the ecological and economic foundations of health and well-being, as does #33.)


39. Ayob, A. M., and N. F. Yaakub. Development and change in Batang Ai: perception of a resettled Iban community. *SMJ* 42:267-282, 1991. (While resources for gathering and growing food in the resettlement area were not deemed sufficient, 60% regarded the healthcare facilities there favorably.)


41. Baer, A. *Health, Disease, and Survival: A Biomedical and Genetic Analysis of the Orang Asli of Malaysia.* Center for Orang Asli Concerns, Subang Jaya, Malaysia, 1999. (Some comparisons with Bornean conditions.)


48. Barker, R., et al. Pediatric gastroenteritis in the eastern Malaysian state of Sarawak. *TRSTMH* 82 (6):891-901, 1988. (On Iban and Chinese at Sibu and Kapit hospitals; oral rehydration and antibiotics for diarrhea were widely available in the state; among young Iban children ill with gastroenteritis, 78% were bottle/formula fed rather than breastfed.)


50. Bedford, K. J. A. Gombak Hospital, the Orang Asli Hospital. *Indonesia and the Malay World* 37 (107):23-44, 2009. (Contrasts the poor situation in W. Malaysia for indigenous health care with that in E. Malaysia.)


Hospital Med. 42 (6):488-490, 1989. (Compared Iban and Kayan on immunizations, nutrition, and health services; after a diphtheria epidemic in Iban children in 1979, DPT immunization became virtually universal in Sarawak; malnutrition was common in both communities.)


60. Bulan, R. Boundaries, territorial domains, and Kelabit customary practices: discovering the hidden landscape. BRB 34:18-61, 2003. (Notes that cholera triggered Kelabit dispersal in the highlands in the 1920s; discusses the iodine-enriched Kelabit salt-making process and notes that similar salt is made by the Lun Bawangs, Kerayans, and Berians; reports that older women, experts on environmental resources, take younger women on forest food-collecting trips.)


a medical assistant in Sarawak in the 1950s who treated over 300 coastal-riverine patients weekly from his small boat; reported on the leprosarium in Sarawak and United Nations nurse-tutors; noted arsenical treatment of yaws and immunization against tuberculosis.)

66. Caniago, I., and S. F. Siebert. Medicinal plant ecology, knowledge, and conservation in Kalimantan, Indonesia. *Economic Botany* 52 (3):229-250, 1998. (Studied Ransa Dayak village in W. Kalimantan; over 250 species are used by local healers; in general, older women know more medicinal plants than do older men or young people.)


73. Chandler, G. Access to health care in the interior of Sabah. In *The Political Economy of Primary Health Care in Southeast Asia.* P. Cohen and J. Purcal, eds. Australian Development Studies Network, Canberra, 1989. (Contains wide-ranging observations on rural and urban care in Keningau and Nabawan/Pensiangan districts; reported that Malaysian health information is incomprehensible to Muruts and Dusuns in rural areas and that it is socially tabooed for a male doctor to see a female patient in a private room; some demographic data included.)


79. Chen, P. C. Developing primary health care for a nomad tribe: the Penans of the Baram. *A-P J. Pub. Hlth.* 1:34-37, 1987. (Healthcare was improved in Baram District by introducing a health promoter volunteer program after a survey found 42% of adult Penans had goiter, 35% of children had intestinal helminths, and childhood diarrhea, coughs, skin diseases, and malnutrition were common ailments at the Lio Matu health clinic.)


84. Chew, D. Social and cultural trends in Sarawak. *SMJ* 47:85-100, 1994. (Describes the increase in medical facilities throughout the state.)


87. Chong Chun Hian. Memoirs of a pioneer doctor in Sarawak in the 1950s. Sarawak Gazette 120:5-23, 1993 and 121:20-23, 1994. (The British colonial government sent a doctor and a medical aide from Sibu Hospital to the Ulu Rejang; they found open-sore yaws, malaria associated with widespread logging, lack of safe water supplies, and invasive diseases such as measles, polio, diphtheria, and whooping cough, among other problems; the doctor lamented the filing and blackening of teeth in the longhouses and noted the fashionable gold-capping of teeth in older people.)


96. Chung, F. J. Interests and policies of the state of Sarawak, Malaysia regarding intellectual property rights for plant derived drugs. J. Ethnopharmacology 51 (1-3):201-204, 1996. (Discusses the discovery that extracts from two species of Calophyllum trees have anti-
HIV properties.)

97. Clarke, M. C. The Binadins of North Borneo. *MJM* 2 (3):179-183, 1947. (On the Binadin/Ubian fishing group; malaria, intestinal worms, and malnutrition were common.)

98. Clarke, M. C. Some impressions of the Muruts of North Borneo. *TRSTMH* 44 (4): 453-464, 1951. [Reported that health was poor, in terms of TB, goiter, maternal mortality, sterility, malnutrition, infant mortality (23%), and miscarriage-stillbirths (11%).]

99. Clarke, M. C. Kalatong: the Murut treatment of chronic disease. *JMBRAS* 27 (1):68-72, 1954. (Only women were ritual healers-herbalists but diagnosticians were of either sex; discusses treatment for a tuberculosis-like condition in the Keningau area.)

100. Colchester, M. *Pirates, Squatters, and Poachers*. Survival International, London, 1989. (Noted that effluents from oil-palm processing have made many Borneo rivers unsafe for drinking.)

101. Copeland, A. The Muruts of North Borneo: malaria and racial extinction. *Lancet* 228:1233-1239, 1935. (This report is also on Dusun; it is analyzed in #31.)


106. Crain, J. B. The anger within the flesh of the house: mengalong Lun Dayeh cosmology as argument about babies and birds. In *Female and Male in Borneo*. V. H. Sutlive, ed. Borneo Research Council, Williamsburg, Virginia, 1991. Pp. 335-344. (The Lun Dayeh of the middle Mengalong River, Sabah, including the village of Ranau, define health in a community sense, such as living in a longhouse, and define ill health as resulting from being alone or living away from home.)
107. Cross, J. H., et al. Parasitological survey and seroepidemiology of amoebiasis in South Kalimantan (Borneo), Indonesia. *SEAJTMPH* 6 (1): 52-60, 1975. (On natives and Javanese transmigrants; 97% of the people tested had one or more intestinal parasite, usually worms; 4.4% had malarial parasitemia; 34% gave evidence of Entamoeba infection.)

108. Cross, J. H., et al. Parasitic infections in humans in West Kalimantan (Borneo), Indonesia. *Tropical Geographical Med.* 28 (2):121-130, 1976. (In the eight villages studied, 6% of the population had malaria, 4% had filariasis, 97% had intestinal parasites.)


111. Dennis, D. T. The field studies, 1981. In *Tropical Disease Research in Sabah*. IMR Bull. No. 20, Kuala Lumpur, 1983. Pp. 90-99. [Studied Rungus and Bajau in Pantai village plus five other villages (Rosab, Rokom, Kebatasan, and Sinukab), all in the Kudat Residency; some demographic data; found poor sanitation, poor health services, high adult illiteracy, many stillbirths, and high malaria and filariasis rates, but little goiter.]


1998.

118. Durfee, P. T., et al. Toxoplasmosis in man and animals in South Kalimantan (Borneo), Indonesia. *Am. J. Trop. Med. Hyg.* 25 (1):42-47, 1976. (Toxoplasma antibody prevalence ranged up to 51% in villagers and was 61% in domestic goats, which were probably the source of human infection.)


121. Elvince, R., et al. Assessment of mercury contamination in the Kahayan River, Central Kalimantan, Indonesia. *J. Water Environmental Technology* 6 (2):103-112, 2008. (One Kahanan tributary had 2 times the safe limit of mercury; also studied the Rungan River, which had low concentrations.)


123. Evans, I. *The Religion of the Tempasuk Dusun of North Borneo*. Cambridge University Press, London, 1953. (Noted that smallpox spirit stones guarded villages; the spirits warned people not to go to other villages where smallpox raged; in the popouluk ceremony boats were used to carry disease away, following the measles epidemic in Kadamaian in 1939, as well as in Bajau and Illanun areas.)


125. Fauziah Zainal Ehsan and F. Siner Sipeng. The village health promoter programme in Sarawak. *Sarawak Gazette* 126 (1539):9-11, 1999. (Implemented in 1983, this program trains local volunteers, provides them with medical kits, and supervises their work through areal mobile health teams.)


132. Gan, C. Y., and M. K. Chan. A blood pressure profile of rural Kadazans and Bajaus in Sabah. *SEAJ TMPH* 24:583-589, 1993. (On rural kgs. in Kota Belud District; studied age 20 years and up and found over 10% were hypertensive; contains population profiles.)

133. Geddes, W. R. *The Land Dayaks of Sarawak, a Report on the Social Economic Survey of the Land Dayaks to the Colonial Social Science Research Council.* Colonial Research Studies, No. 14, Her Majesty’s Stationary Office, London, 1954. (In the 1950s Bidayuh in Upper Serian had no modern medical care except that provided by the author’s medical kit; infant mortality was high, malaria and other ailments were common, and intestinal worms seemed universal; most people had never consulted a medical worker about their health problems; the paramedic stationed in Tebakang had a potential client base of 12,000 people, most of whom he was never able to visit in their remote locations.)

134. Ghazally Ismail and Murtedza Mohamed. Health and environment in Sabah. *Borneo Review* 1 (1):41-59, 1990. (Environmental change, including the creation of artificial catchment areas resulting from deforestation and agricultural activities, may have changed the prevalence of vector-borne diseases; food-borne diseases, common in Sabah, may be related to fecal contamination of rivers; air pollution, pesticide usage, and river contamination by heavy metals have also increased.)


140. Gollin, L. X. *The taste and smell of Tabah Kenyah (Kenyah medicine): An exploration of chemosensory selection criteria for medicinal plants among the Kenyah Leppo’ Ke of East Kalimantan, Borneo, Indonesia.* Ph. D. dissertation, Univ. Hawaii, Honolulu, 2001. (Bitter plants are favored for relieving fevers; astringent plants are favored as internal anti-diarrhetics and external wound healers.)


142. Griffith, G. Health and disease in young Sea Dayak men. *SMJ* 6 (5):322-327, 1955. [Iban volunteers for the Sarawak Rangers, while pre-selected in some ways for good health, had a number of problems; 9% had defective eyesight, 7% had otitis media, 7% had microfilariae, 5% had crab yaws, 4% had thyroid enlargement (goiter), 4% had heart murmurs, and 3% had “chronic” malaria; no cases of leprosy, scoliosis, inguinal hernia, or vitamin deficiency were observed; among lowland Simanggang Iban men, 33% had filariasis but fewer inland men had it.]


150. Hanihara, T. Dental and cranial affinities among populations of East Asia and the Pacific. *Am. J. Phy. Anthro.* 88:163-182, 1992. (A typological analysis, treating each group as a clone; Dayaks sampled at Pontianak were considered to be a “remnant of ‘pure’ Proto-Malays,” a construct of stereotypic thinking.)


161. Heiser, V. *An American Doctor’s Odyssey*. Norton, New York, 1936. (Discusses the Brooke regime’s lack of interest in public health promotion.)

162. Heyser, N. Rainforest management and indigenous livelihoods. *Development* 4:14-17, 1992. (In Limbang District, Sarawak, typhoid, cholera, and diarrhea all occurred when gravity-fed water pipes were empty during the dry season.)


169. Hsu, V. P., et al. Estimate of the burden of rotavirus disease in Malaysia. *J. Infectious Diseases* 192 (suppl.):s80-s86, 2005. (Children have a 2% chance of contracting rotavirus diarrhea before reaching 5 years of age.)

and adults from the Penan ethnic minority of Malaysian Borneo. *Am. J. Trop. Med. Hyg.* 71 (4):444-450, 2004. (Studied Penan in remote Limbang Division, Mulu regional center, and Belaga village; almost 40% were antigen-positive; people with availability of a flush toilet were more likely to be antigen-negative but people in the remote setting also tended to be antigen-negative.)


176. Institute for Medical Research, Kuala Lumpur. *Tropical Disease Research in Sabah.* IMR Bull., no. 20, 1983. [Described 1981 field studies on Rungus, Bajau, and others on the Bengkoka Peninsula; in the villages of Rosob, Rokom, Kebatasan, Sinukab, Kanibongan, and Pantai; over 22% of the study population harbored microfilariae; despite anti-malarial measures, malaria was mesoendemic, with a relatively high rate in males and in children; over 20% of children were malnourished; iron-deficiency anemia was found in 48% of the children and 28% of the women (15-45 years); leprosy was a public health problem, with a prevalence of perhaps 2.5/1000.]


180. “J. D. M.” Tracking a virus and making a point. *Science* 279:1467 only, 1998. (A profile of Jane Cardosa and her virus research.)

181. Jensen, E. Sickness and the Iban manang. *Folk* 14-15:93-102, 1972/73. [Iban favored injections of penicillin to cure infectious diseases such as yaws but favored their own healers (manang), who often have poor eyesight, for other maladies; mentions Rumah Ancheh and R. Sa in Lemanak, Silik in upper Batang Ai, the upper Undup, and Skrang.]

182. Jinam, T. A., et al. An update of the general health status in the indigenous populations of Malaysia. *Ethnicity and Health* 13 (3):277-287, 2008. (Bidayuh and Temuan were more obese than Kensiu or Jehai but they had less evidence of immune response to infection than the Kensiu or Jehai.)


185. Jus’at, I., et al. Reaching young Indonesian women through marriage registries: an innovative approach for anemia control. *J. Nutrition* 130 (suppl. S) (2):s456-s458, 2000. (Studied three districts in S. Kalimantan where couples are required to obtain tetanus immunization before marriage; pre-marriage women were counseled to take iron-folate tablets and 261 such women were monitored for hemoglobin levels; found anemia decreased from 24% to 14% during the study period.)


187. Kamil Mohamed Ariff and Teng Cheong Lieng. Rural health care in Malaysia. *Australian J. Rural Health* 10:99-103, 2002. (Most health services to rural areas are provided by government facilities, with local clinics backed up by hospitals in towns and, for remote areas, by the “flying doctor service” which consists of a doctor, medical assistant, and two nurses.)


biopsies in three cases in Sabah, Malaysia. *SEAJTMPH* 10 (1):97-99, 1979. (All three cases were in immigrants; earlier, Sabah was free of the disease.)


192. Kedit, P. M. An ecological survey of the Penan. *SMJ* 30:225-279, 1982. (Studied Tepoh Basong, Long Pala, L. Iman, Ubung, and L. Napir; in the 1980s, Penan knew and used over 30 medicinal, wild plants; five wild plants were used as an antidote to dart poisoning.)


201. Kiyu, A. The availability of some household items among Penan households in the Lio Mato area, Upper Baram, Sarawak. *Sarawak Gazette* 113:15-24, 1986. (The area was surveyed for a village health promoter program; lack of mosquito nets noted.)


204. Kiyu, A., and S. Hardin. Latrine use in rural Sarawak. *SEAJTMPH* 24 (1):40-42, 1993. (In 1989 a third of rural water systems were non-functional; pour-flush latrines were well used by adults but only by about half of pre-school children; since that time such latrines have become common in rural areas but the problem of water shortages during droughts still exists.)

205. Kiyu, A., et al. Evaluation of the healthy village program in Kapit District, Sarawak, Malaysia. *Health Promotion Internat.* 21 (1):13-18, 2006. (To help alleviate the poverty, disease, environmental harm, injuries, and accidents that occur among rural ethnic minorities in Sarawak, a World Health Program was implemented at the longhouse level in 2000 in Kapit District; the 2003 evaluation covered environmental and hygiene improvements, fire safety, and exercise and smoking habits and found beneficial changes had occurred.)


223. Lau, S., et al. Accumulation of heavy metals in freshwater mollusks. *Sci. Total Environment* 214:113-121, 1998. (Studied mollusks in the right fork of the Sarawak River influenced by human activity such as gold mining; two of the species are edible and are sold in Sarawak markets; they had levels of arsenic much higher than that permissible for human consumption.)


226. Leaman, D. *The medicinal ethnobotany of the Kenyah of East Kalimantan (Indonesian Borneo) (Indonesia).* Ph. D. dissertation, Univ. Ottawa, Canada, 1996. (403 remedies involving 203 species were tabulated in three Kenyah villages; malaria remedies were intensively studied; some plants had anti-fungal activity.)

227. Leaman, D., et al. The contribution of ethnobotanical research to socio-economic objectives: an example from the Apo Kayan Kenyah. In *Borneo in Transition.* C. Padoch and N. Peluso, eds. Oxford Univ. Press, Kuala Lumpur, 1996. Pp. 245-255. (Knowledge of effective medicinal plants is being lost; researchers learned from E. Kalimantan Dayak healers which plants are used medicinally and later tested them for pharmacological properties; treatments such as herbal steam baths and topical plasters, not part of modern medicine, were popular locally.)


229. Lee, D. L. Intestinal helminth infections amongst school children in the Serian District of Sarawak. *MJM* 54 (1):96-101, 1999. (Found 34% had intestinal worms; primary-school children living in rural areas were most affected.)


233. Liew, K. B. and M. Lepesteur. Performance of the rural health improvement scheme in reducing the incidence of waterborne diseases in rural Sarawak, Malaysia. *TRSTMH* 100 (10):949-955, 2006. (Between 1963 and 2002 improvements in rural water supplies contributed to a 200-fold decrease in dysentery and a 60-fold decrease in enteric fever, but no clear trend for viral hepatitis and a continuation of endemic cholera in 2002. Catchment management was advocated to ensure both piped and alternative water supplies, especially during droughts.)

234. Lim, T. O., et al. Distribution of blood pressure in a national sample of Malaysian adults. *MJM* 55 (1):90-107, 2000. (Malay and indigenous women have more severe hypertension than other adult groups in Malaysia; among such women, over 40% of those at least 70 years of age have blood pressure above 160/100.)


239. Malik, A. S., and R. H. Malik. Core curriculum and special study modules at the Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak. *Education for Health: Changes in Learning and Practice* 17 (3):292-302, 2004. (Pediatrics was used as a pilot project.)


243. McKay, D., and T. Wade. Nutrition, environment, and health in an Iban longhouse. *SEAJTMPH* 1:68-77, 1970. (On Rumah Untan, R. Enggi, R. Inbat, R. Unjam, and R. Jaling, all in the Second and Third Divisions of Sarawak; at that time, the latter two longhouses were at least ten hours travel time away from a hospital and eight hours from a clinic; found Iban children were underweight and stunted and dysentery caused much infant mortality.)

244. McKee, T. C., et al. New pyranocoumarins isolated from Calophyllum lanigerum and Calophyllum teysmannii. *J. Natural Products* 59:754-758, 1996. (Extracts from leaves and the bark of trees collected near Lundu, Sarawak, and at the Singapore Botanical Garden, show promise as HIV inhibitors; the first named tree is known in Sarawak as the bintangor tree.)

245. McLoughlin, P. Anthropometric and anthroscopic studies of the Punan. *SMJ* 24:101-105, 1976. (Based on physical measurements of a small sample of Penan Sukang, the group was judged to be well-built, healthy, and well-nourished.)


247. Merikan bin Aren. *Sematan Health Clinic*. Sematan, Sarawak, no date (1996?). (Describes the services of the clinic.)


250. Mokhtar, M., et al. Lead in blood and hair of [a] population near an operational and a proposed area for copper mining, Malaysia. *Bull. Environmental Contamination Toxicology* 52:149-154, 1994. (Studied people in the Ranau-area valley and villagers in the Bidu-Bidu hills area of Sabah; found unacceptable levels of lead in samples from the Ranau area, near an operational mine.)


255. Morris, H. S. The Oya Melanau: Traditional ritual and belief. *SMJ* 52:1-388, 1997. (Reported that only after 1918 were medical dispensaries opened in the Mukah to Dalat area of Sarawak.)

256. Mortimer, R. B. Leptospirosis in a caver returned from Sarawak, Malaysia. *Wilderness Environmental Med.* 16 (3):129-131, 2005. (A man from the U. S. contracted this disease in a wet cave, due to a spirochete that spreads from animals to humans via water.)

257. Mott, J. A., et al. Cardiorespiratory hospitalizations associated with smoke exposure during the 1997 Southeast Asian forest fires. *Internat. J. Hygiene and. Environmental Health* 208 (1-2):75-85, 2005. (Data from Kuching area hospitals showed increases in asthma and chronic pulmonary respiratory disease during the forest-fire smoke period, especially for those over 65 years of age with other cardiorespiratory problems.)


personhood; twins are a social disgrace and one of the pair is routinely adopted out.)

263. Nicolaisen, I. Cultural perceptions, gestational diabetes, and development. *Internat. J. Gynaecology and Obstetrics* 104 (suppl. 1):s8-s10, 2009. (Discusses the rise of type 2 diabetes and diabetes mellitus, emphasizing the situation among indigenous people in central Borneo.)


268. Nor Aza Ahmad et al. Distribution of intestinal parasites in a community of Kelabit school children. In *Bario: the Kelabit Highlands of Sarawak*. Ghazally Ismail and Laily bin Din, eds. Pelanduk, Petaling Jaya, Malaysia, 1998. Pp. 261-266. (61% of school children had at least one kind of intestinal parasite; the semi-annual deworming program there for primary school goers seems to be ineffective.)


275. Omar, S. *Phytochemical discovery of antifeedant, antimicrobial and antimalarial principles*. Ph. D. dissertation, Univ. of Ottawa, Canada, 2001. [Bitter triterpenoid compounds isolated from the traditionally used antimalarial plant, Lansium domesticum (langsat), were found to be antimalarial in laboratory tests.]

276. Omar, S., et al. Traditionally used antimalarials from the Meliaceae. *Current Topics in Medicinal Chemistry* 3 (2):133-139, 2003. (The Kalimantan Kenyah use langsat as an antimalarial; a bark extract was active against Plasmodium falciparum.)


278. Ooi, M. H., et al. The epidemiology, clinical features, and long-term prognosis of Japanese encephalitis in Central Sarawak, Malaysia, 1997-2005. *Clinical Infectious Diseases* 47 (4):458-468, 2006. (Children who had been infected with JE were assessed over an 8.3 year period; 41% had apparent full recovery but the majority had moderate to severe neurological damage and behavioral disorders.)


283. Parker, D. S., and R. J. Barrett. Collective danger and individual risk: Cultural perspective on the hazards of medical research. *Internal Med. J.* 33 (9-10):463-464, 2003. (Iban saw participation in research as a danger to the collective, not to individuals; but after the danger was ritually controlled, most of the Iban were eager to participate in research; in Australia, by contrast, risk is assessed at the individual level.)


287. Podin, Y., et al. Sentinel surveillance for human enterovirus 71 in Sarawak, Malaysia: lessons from the first 7 years. *BMC Public Health* 6: 180, 2006. (Hand, foot, and mouth disease associated with enterovirus 71 first occurred in Sarawak in 1997 and then elsewhere in the Asia-Pacific region; Sarawak also had outbreaks in 2000 and 2003—as well as later in the decade. Surveillance helps prepare medical units for future outbreaks, but no means of eradication is known.)


291. Purba, M. Use of a control chart to monitor diarrhoea admissions: a quality exercise in West Kalimantan Provincial Hospital, Pontianak, Indonesia. *J. Quality Clinical Practice*
(Studied the number of cases per week over five years to establish a time pattern.)


295. Ramasamy, P., and A. Osman. The medical school curriculum of University Malaysia Sabah. *MJM* 60 (suppl. D):58-65, 2005. (This medical school was inaugurated in 2003; community medicine is included in the curriculum.)


298. Ravindran Thayan, Nor Shahidah Khairullah, and T. M. Ho. Serological screening of tick-borne encephalitis (TBE) among Malaysian encephalitis patients. *Tropical Biomedicine* 21 (2):153-156, 2004. (No TBE was found in Sabah patients.)

299. Rayner, N. A medical elective in plastic surgery. 2005. (A student from the Imperial College School of Medicine worked in the Sarawak General hospital plastic surgery unit; childhood lip and palate repairs were most common.)


308. Sagin, D. D., et al. Schistosomiasis malayensis-like infection among the Penan and other interior tribes in Upper Rejang River Basin, Sarawak, Malaysia. *SEAJTMPH* 32 (1): 27-32, 2001. [Although rare in Sarawak, mild schistosomiasis was found in the area of the Bakun dam project in the Upper Rejang among the Kayan at Murum and Linau, Kayan and Kenyah at Sah, Lahanan at Panggai, and Penan at Lesong Laku, but not among the Ukit at Long Ayak; the Ukit sample, however, was very small.]

309. Sagin, D. D., et al. Intestinal parasite infection among five interior communities at Upper Rejang River, Sarawak, Malaysia. *SEAJTMPH* 33 (1):18-22, 2002. [In the Upper Rejang area, Kayan at Murun (sic) and Linau, Ukit at Ayak, Penan at Laku, Kenyah and Kayan at Sah, and Kajang at Panggai were studied; over 40% of the people studied had infections such as Trichuris, roundworm (Ascaris), or hookworm; women had more infections than did men and almost as many as did the children.]

310. Sagin, D. D., et al. Anemia in remote interior communities in Sarawak, Malaysia. *SEAJTMPH* 33 (2):373-377, 2002. [Somewhat paradoxically, found more anemia in Upper Rejang men (29%) than women (7%), perhaps because women of child-bearing age received iron-folate supplements; in contrast, in the 11-20 year old age group 32% of females but only 4% of the males were anemic; among the elderly tested, there were no women.]

assessable, affordable, and available—especially from public health clinics, but in some areas in Sabah availability was still a problem.)


313. Sarawak Medical and Health Services Department. *Annual Report, Kuching*. 1986. (Among other data presented, nearly 36,000 new cases of scabies were reported by outpatient clinics in 1984; 3 cholera outbreaks occurred in Sarawak in 1984 but only 19 people were clinically ill; a major measles outbreak occurred in 1983; malnutrition was 14% in infants, 38% in toddlers, and 56% in pre-schoolers in 1982; and Aedes mosquitoes that transmit dengue and Mansonia that transmit filariasis had developed DDT resistance by the 1980s.)


321. Sebastian, V. J., et al. Prevalence of hepatitis-B surface antigen in the pregnant women of Brunei Darussalam. *SEAJTMPH* 21 (1):123-127, 1990. (3.2% of pregnant women surveyed in Kuala Belut had the antigen; fewer of the majority group, Malays, had the antigen than did other groups.)


326. Shamalla-Hannah, L. B., S. M. Likumahuwa, and R. Ali. A conservation health program in Indonesian Borneo. *Environmental Practice* 10 (1):20-28, 2008. (Health aid was provided to the Kelay area of Berau District, E. Kalimantan, by a combination of local volunteer health workers, medical-school and government personnel, and The Nature Conservancy; the Punan recipients of aid experienced a dramatic rise in immunizations and other health benefits as well as an increased awareness of the value of environmental conservation in the high-biodiversity areas in Berau and East Kutai districts.)


341. Suroso, T., et al. Challenges for control of taeniasis/cysticerosis in Indonesia. *Parasitology Internat.* 55 (suppl.):s161-s165, 2006. (Tapeworm occurs in W. Kalimantan and elsewhere in Indonesia; efforts are being made to provide anthelminthics and to train personnel in disease prevention, community education, and active surveillance.)

342. Sutlive, V. H. *The Iban of Sarawak.* Waveland Press, Illinois, 1978. (Reported that epidemics of smallpox, typhoid, malaria, and dysentery once cycled in the Rejang area; by 1970 Iban women were the largest ethnic group to attend the family planning clinic in Sibu.)


345. Teh, C. L. and J. S. Wong. The pattern and clinical manifestations of rheumatoid arthritis in Sarawak General Hospital. *Clinical Rheumatology* 27 (11):1437-1440. 2008. (Delay in presentation and diagnosis may explain the observed severity of the condition in Sarawak.)


349. Thitima Pengsuparp et al. Specific inhibition of human immunodeficiency virus type 1 reverse transcriptase mediated by soulattrolide, a coumarin isolated from the latex of Calophyllum teysmannii. *J. Natural Products* 59:839-842, 1996. (On HIV; the latex was from a Sarawak tree.)


356. Van der Hoff, N. M. Two yaws epidemics in South West Borneo. *Documenta de Medicina Geographica et Tropica* 9 (3):281-290, 1957. (18% of coastal Malays and 27% of interior Dayaks had active yaws lesions.)


361. Vischer, M. Medizinische Erfahrungen unter den Dajaken in Sud-Borneo [Medical practice among the Dayaks of South Borneo]. *Schweizerische Medizinische Wochenschrift* 66 (13):315-320, 1936. (A Swiss medical missionary found 26% of his patients had malaria, 10% had amoebiasis, and there was much yaws, leprosy, and TB.)

medical system; apparently, prior to sedentization the Penan were relatively disease-free and treated illnesses with only a few plant medicines.)

363. Voeks, R. A., and Samhan Nyawa. Healing flora of the Brunei Dusun. *BRB* 32:178-195, 2001. (On Dusun at Bukit Sawat and Bukit Udal in the Tutong and Belait River watersheds; 73 medicinal plants were identified, most of them functioning as tonics for men’s or women’s feeling of weakness, followed by plants used for gastrointestinal problems.)


374. Wong, J. S.  Proteinuria in diabetic patients in a primary health care setting in Sarawak.  
*MJM* 60 (2):146-150, 2005.  (On Tanah Puteh clinic.)

375. Wong, J. S., and N. Rahimah.  Glycemic control of diabetic patients in an urban primary 
health care setting in Sarawak: the Tanah Puteh Health Center experience.  

376. Wong, J. S., K. H. Ng, and S. H. Wong.  Intracranial aneurysms in Sarawak General 

T. S. Osteria, ed.  Field Report Series No. 24, Social Issues in Southeast Asia, Institute of 
education case study led to the establishment of a kindergarten and a childhood nutrition 
program run by village mothers.)

data from Malaysia; JE is endemic in Sarawak, largely occurring in children, but the 
introduction of a JE vaccine in 2001 reduced the number of cases.)

379. Wong, Y. L., K. Yusof, and K. S. Low.  Primary health care for the urban poor in Sabah: a 
Y. H. Johari and M. A. Amirdad, eds.  Institute for Development Studies, Kota Kinabalu, 

380. Woodcock, A. A., and A. M. Cunningham.  The allergenic importance of house dust and 

381. World Health Organization.  *Report of the 8th Borneo Conference, Keningau, North Borneo, 

(On Bidayuh, Malays, Iban, Chinese; mothers in Lundu Hospital with anemia or other 
complications had four times more LBW newborns than did other mothers.)

383. Yadav, M., S. Umamaheswari, and D. Ablashi.  Low prevalence of antibody to human 

384. Yadav, M., S. Umamaheswari, and D. Ablashi.  Antibody reactivity with two strains of 
Kadazan, and Bidayuh populations all had low HHV-6 antibody titers but had high
Epstein-Barr virus titers.)


386. Yii, M. K. Epidemiology of abdominal aortic aneurysm in an Asian population. *Australian and New Zealand J. of Surgery* 73 (6):393-395, 2003. (Based on data from Sarawak General Hospital, the disease incidence was comparable to that found in rich countries; the male to female ratio was 3.5:1.)


388. Yong, A. S., et al. Epidemiology of aplastic anaemia in the state of Sabah, Malaysia. *MJM* 53 (1):59-62, 1998. (Although rare, this anemia is more common in males; Kadazan-Dusun may be particularly susceptible.)


II. Cancer


394. Armstrong, R., and H. Ahluwalia. Cancer incidence in Malaysia. *National Cancer Institute Monographs* 53:53-57, 1979. (Nasopharyngeal cancer was stated to be common in Kadazans, but no data were provided.)

on 103 cases confirmed in 1981-1983, Burkitt’s lymphoma was the commonest type in children and diffuse large cell type 51 was the commonest in adults; Epstein-Barr virus was found in most of the cases tested.

396. Dawie, U. A. K. (=Kiyu, A.). Epidemiology of cancer in Sarawak. *SEAJTMPH* 16 (4):584-590, 1985. (On a variety of cancers in Chinese, Malays and Melanau, Bidayuh, Iban, and others; thyroid cancer, at twice the rate in women than men, may be related to women’s high incidence of goiter; Iban had the highest percentage of lymphoma cases.)


399. Devi, B. C., T. S. Tang, and M. Corbex. What doctors know about cancer pain management: an exploratory study in Sarawak, Malaysia. *J. Pain and Palliative Care Pharmacotherapy* 20 (22):15-22, 2006. (Note: In that year, morphine was the only opioid available in Sarawak government hospitals for significant cancer pain.)


401. Devi, B. C., T. S. Tang, and M. Corbex. Setting up home-based palliative care in countries with limited resources: a model from Sarawak, Malaysia. *Annals Oncology* 19 (12):2061-2066, 2008. (This program of family education and nurse empowerment for pain medication in remote areas, initiated in 1993, has evidently been sustainable and cost-effective.)


404. Griffith, R. S. Vancomycin use—an historical review. *J. Antimicrobial Chemotherapy* 14 (suppl. D):1-5, 1984. (This antibiotic was isolated from Streptomyces orientalis collected from a soil sample in the Borneo rainforest.)


409. Leong, B. D., et al. Breast cancer in Sabah, Malaysia: a two year prospective study. *Asian Pacific J. Cancer Prevention* 8 (4):525-529, 2007. (About 5% of Malaysian women develop breast cancer in their lifetime; Sabah women who were poor, rural, and not formally educated tended to present with advanced disease; greater public information on cancer risk is needed.)

410. Lim, G. C. C. Overview of cancer in Malaysia. *Japanese J. Clinical Oncology* 43 (suppl. 1):s37-s42, 2002. (While lung cancer was the most prevalent type in Malaysia in the late twentieth century, in Sarawak cervical, breast, and nasopharyngeal were the three most common types; in Sarawak nasopharyngeal cancer is common in Chinese but most common in Bidayuh; Sarawak cervical cancer patients delayed in seeking diagnosis.)


III. Cholera


432. Gomes, E. *Seventeen Years among the Sea Dayaks of Borneo*. Seeley, London, 1911. (In 1902 cholera caused over 1500 deaths in Sarawak during a drought; cholera victims were deserted by all and left to fend for themselves.)

433. Guda, B. P., et al. Factors associated with emergence and spread of cholera epidemics and its control in Sarawak, Malaysia between 1994 and 2003. *Southeast Asian Studies* 43 (2):109-140, 2005 and Departmental Bulletin Paper, Kyoto Univ. [http://hdl.handle.net/2433/53820](http://hdl.handle.net/2433/53820) accessed Mar. 6, 2009. (In the 10 year period, 1672 cholera patients were recorded, with the worst epidemics being in the El Nino years of 1997-1998; over the decade Bintulu, Miri, and Limbang areas were hard hit, as were adult coastal Malays, poor laborers, and rural housewives; the Health Department and other agencies actively intervened after 1999 in surveillance, quarantine, etc., to reduce morbidity; this proved to be effective.)


437. Sagin, D. D. Cholera in Sarawak: historical to microbial pathogenesis perspective. In

439. Yadav, H., and Chai Meng Chee. Cholera in Sarawak: a historical perspective (1873-1989). *MJM* 45 (3):194-201, 1990. (On coastal Malays, Iban, Melanau, and Chinese; cholera epidemics have recurred over the past 130 years in Sarawak, especially in areas with poor environmental sanitation and poor water supplies; Malays are most commonly affected.)

**IV. Demography**


442. Aichner, P. How the Melanaus were partly extirpated. *SMJ* 6:54-55, 1954.


444. Appell, G. N. Social anthropological census for cognatic societies and its application among the Rungus of northern Borneo. *BTTLV* 125:80-93, 1969. (Pointed out the importance of demographic investigation in anthropological work.)


449. Ayob, A. M., et al. *A socio-economic study of three SALCRA land schemes: participants’ perceptions, attitudes, and levels of living.* Faculty of Economics and Management, Univ. Putra Malaysia, Serdang, 1990. (Even though many Iban men working elsewhere were counted, the male to female sex ratio for the Lemanak Oil Palm Scheme in Sarawak was 1.10, indicating a lower life expectancy for women than men.)


452. Chin, S-C. *Agriculture and resource utilization in a lowland rain forest Kenyah community.* *SMJ* Special Monograph No. 4, Kuching, 1985. (Gives population data for Long Selatong.)


457. Department of Statistics, Malaysia. *Yearbook of Statistics, Sarawak, 2003.* Kuching, Sarawak, 2003. (In the early 1990s the Sarawak population grew at a rate of 2.2% annually; by 2000, it was still growing at about 2% annually; if this trend continues, the population will double by 2030 in part because some 30% of the population is under the age of 15 and the elderly group, while small, will grow larger as health services improve; the leading cause of death in 1999 was diseases of the circulatory system; cancers came in second and accidents third; in 1999 34 Sarawak women died of breast cancer.)


460. Ellis, D. A study of the Punan Busang. SMJ 20:235-300, 1972. (After this group was sedentized, the population went from 150 to 75 in three years; 20% of the senior generation had no surviving offspring in 1971 due to sterility and to an infant mortality rate of greater than 25%.)


466. Grijpstra, B. G. Common Efforts in the Development of Rural Sarawak, Malaysia. Van Grocum, Amsterdam, 1976. (Found a 1.24 male to female sex ratio in Bidayuh over the age of 59, attributable to reproductive depletion and hard work for women; found neonatal mortality was about 7%; in the 1970s, 10% of Serian District Bidayuh villages had a free health clinic and mobile health workers served some outer areas.)

467. Grijpstra, B. G. Impressions of long term change in a Bidayuh village. Sarawak Gazette


473. Heyser, N.  Gender, population, and environment in the context of deforestation: A Malaysian case study.  *IDS Bull*.  26 (1):40-46, 1995.  (On Kelabit at Long Napir and on Lun Bawang, Penan, and Iban in Limbang District; indigenous farm women accepted contraceptives to limit family size because having fewer children to feed and to pay for schooling was a better strategy for modern conditions.)


475. Ilyanto Sandi.  *Aspek sosio bidaya morbiditas dan mortalitas di wilayah punukiman transmigrasi Kalimantan Tengah dan Sulawesi Tengah: laporan penelitian*.  Univ. Indonesia, Jakarta, 1986.  (Research on social aspects of morbidity and mortality of transmigrants in Central Kalimantan and Sulawesi.)


480. Jones, L. W.  *The Population of Borneo, a Study of the Peoples of Sarawak, Sabah, and*


486. Knapen, H. Lethal diseases in the history of Borneo. In Environmental Challenges in South-East Asia. V. King, ed. Curzon, Richmond, Surrey, 1998. Pp. 69-94. (Discusses malaria, smallpox, cholera, and dysentery combined as a regulator of population size; mainly on Kalimantan, based in part on Dutch language sources; forest sustainability was lost as newcomers to Borneo ravaged the landscape and introduced their infectious diseases to native peoples, who died in droves; malaria was the largest culprit, especially in the interior; notes that fear of headhunting may have kept many Borneo groups cohesive and geographically isolated until headhunting was outlawed by foreign rulers, at which time social and economic exchanges among groups increased and lethal diseases then spread.)


488. Koblenzer, P. and N. Carrier. The fertility, mortality, and nuptiality of the Rungus Dusun. Population Studies 13:266-277, 1960. (A mixture of Dusun speakers was surveyed in Maksangkong-Dampirit on the Kudat Peninsula of Sabah, in a nontraditional setting; infant and childhood mortality appear to have exceeded 30%.)


490. Lam, C. K. The population of Sarawak. (2 vols.) Ph. D. dissertation, Australian National Univ., Canberra, 1983. ( Reported by the author to be available on microfilm in Australia; in 1970, 20% of Iban women 40-44 years of age were still childless, indicating male or female sterility; in the 1960-1970 decade Iban infant mortality was high, producing a life
expectancy for Iban of 44 years.)


499. Levang, P., S. Sitorus, and E. Dounias.  City life in the midst of the forest: the Punan hunter-gatherers’ vision of conservation and development. *Ecology and Society* 12 (1): 1-16, 2007.  (Some Punan of the upper Tubu River area in E. Kalimantan now live close to Malinau city where their childhood mortality rate is very low but youths often become alcoholics and drug addicts; in contrast, the remote village of Sule-Pipa, due to charitable donations, has a school and health facilities and a thriving economy.)

500. Levy, J.  Epidemiological survey of intestinal parasitic infections in children in Sabah, Malaysia. *Community Med*. 10 (3):240-249, 1988.  [Of the three sites studied, Tomai (Muruts) had fewer infections than did Kinarut (a Filipino refugee camp), or Ranau (Kadazans); Tomai’s success was attributed to the presence there of a dedicated health worker; birthrate data were also provided for the three sites.]

501. Linklater, A.  *Wild People*.  Atlantic Monthly Press, New York, 1990.  (Noted that at Rumah Langga in the Rejang watershed, 40% of the 30 children there were adopted; such high levels of adoption complicates demographic studies, let alone genetic ones.)


509. Padoch, C. *Migration and its alternatives among the Iban of Sarawak*. Ph. D. dissertation, Columbia Univ., 1978. Published 1982 by Martinus Nijhoff, The Hague. (Including men working elsewhere, the sex ratio was 1.17, male to female, for Bintulu Iban and 1.13 for Engkari Iban; these groups grew 27 non-rice food crops in their swiddens; past high rates of sterility in women was attributed to abortions induced to stop premarital pregnancies that were socially censured; at Nanga Jala three men were “simpletons,” about 4% of the adult male population.)


511. Polunin, I. The Muruts of North Borneo and their declining population. *TRSTMH* 53 (4):312-321, 1959. (Pelvic infection was investigated.)


520. Saw, S-H. *Bibliography of Malaysian Demography*. Institute of Southeast Asian Studies, Singapore, 2005. (Includes information on Sabah and Sarawak.)


534. Yaakub, N. F., A. M. Ayob, and T. Noweg.  Dayak Bidayuh of the Bau-Lundu region: demographic profile and their perception of educational amenities.  *SMJ* 44: 77-91, 1993.  (Noted that subsidies for free school lunches, to combat widespread malnutrition, were small or nonexistent in 1990.)

535. Yohannan John.  Demography of Sarawak, an analysis of the sex-ratio in the various ethnic groups.  *Sarawak Gazette* 121:22-25, 1994.  (Noted the preponderance of females among the Sarawak Iban, but not among the Malays, Chinese, Bidayuhs, or Melanaus, based on incomplete census figures.)


V. Dengue


539. Chang, M. S., and N. Jute. Dengue and dengue haemorrhagic fever outbreak in Lawas District, Sarawak. MJM 41 (4):310-319, 1986. (On Muruts, Malays, Chinese, Kedayans, and others; early dengue cases were reported from Kgs. Temangis and Banting near Lawas town, among others; 54 areas were affected by the epidemic, which spread from the town to the uplands, with most victims being young children or young adult Dayaks.)


541. Cheah, W. L., M. S. Chang, and Y. C. Wang. Spatial, environmental and entomological risk factors analysis on a rural dengue outbreak in Sarawak, Malaysia. Tropical Biomedicine 23 (1):85-96, 2006. (Surveyed seven villages in Lundu District that had many dengue cases; serological tests showed 24% of the villagers had a history of dengue; dengue risk factors were higher in highway-side villages than in those off the main road.)

542. Crabtree, S. A., C. M. Wong, and Faizah Mas’ud. Community participatory approaches to dengue prevention in Sarawak, Malaysia. Human Organization 60 (3):281-287, 2001. (Two coastal Malay kgs., Beradek and Semilang, received aid and information on environmental health as a means of minimizing dengue and other disease outbreaks while a third kg., Aur, served as a comparison; focus-group discussions showed a general ignorance of vector-borne diseases.)


556. Osman, O., M. Y. Fong, and S. Devi.  Sequence analysis of E/NS1 gene junction of dengue virus type 2 isolated in Brunei. *SEA J TMPH* 39 (1):62-78, 2008. (Dengue 2 was the most common form of dengue in Brunei in 2005-2006; the Brunei strain clustered with some Indonesian and Malaysian strains by molecular analysis.)


**VI. Dentistry**


(Noted all but small children had gross tooth decay.)


569. Peacock, B. Observations on the oral conditions of native races in British North Borneo. *British Dental J.* 99:87-89, 129-132, 207-208, 1955. (Dusuns and Muruts in Sabah mutilated teeth and chewed betel; gingivitis was common but caries were not; Chinese children’s teeth were bad.)


573. Wong, L. M. Government dental services in Sarawak, East Malaysia. *Dental Update* 19 (10):430-432, 1992. (The ratio of dentists to population was 1/26,000 in the 1980s with most being private practitioners working in urban areas; the ratio of dental nurses to school children was 1:2000 in 1992; 80% of school goers, 6-18 years of age, had caries.)


VII. Filariasis


582. de Zulueta, J. Observations on filariasis in Sarawak and Brunei. *Bull. WHO* 16:699-705, 1957. (On Iban, Kenyah, Penan; Upper Tinjar people, largely Kenyah, seemed to be dying out in the 1950s due to a high incidence of gonorrhea.)


589. Kanda, T., et al. Microfilarial periodicity analysis of the survey data from six localities in


597. Partono, F., et al. Filariasis in West Kalimantan, Borneo. *SEAJTMPH* 8 (4):459-463, 1977. (Four of eight swampy-coast villages had microfilariae; 7 of 8 had no history of filariasis but the other village had 30 cases of elephantiasis; no ethnic designations given.)

598. Patau Rubis et al. Parasitological and entomological studies on filariasis in seven villages, Serian District, Sarawak. *SEAJTMPH* 12 (1):30-36, 1981. (Studied Balai Ringin town and Kgs. Bator, Sepan, Belimbin, Triboh, Ampungan, and Sebenkoi; 5% of Serian District villagers, largely Bidayuh, had microfilariae, despite indoor spraying with residual DDT in most villages; older people had much higher infestation rates than younger ones.)


cellular responses to filarial antigens. *J. Clinical Investigation* 65 (1):172-179, 1980. (In an endemic area in S. Kalimantan, patients differed in their immune response, with some showing no response at all.)


604. Sudomo, M., et al. A survey of filariasis at Waru village and Babulu transmigration scheme, East Kalimantan. *SEAJTMPH* 11 (4):451-460, 1980. (Found a microfilarial rate of 9% in the village and 0.4% for the Javanese in the new scheme, which had fewer mosquitoes.)

### VIII. Genetics


607. Ainoon, O., et al. Semi-quantitative screening test for G6PD detects severe deficiency but misses a proportion of partially-deficient females. *SEAJTMPH* 34 (2):405-414, 2003. (Relevant to Borneo testing, especially where the testing is qualitative.)


612. Choo, K. E., et al. Recessive distal renal tubular acidosis in Sarawak caused by AE1 mutations. *Pediatric Nephrology* 21 (2):212-217, 2006. (The AE1 gene codes for band 3 protein in the cell membrane that determines erythrocyte shape; one mutation in the gene leads to erythrocyte ovalocytosis, other mutations to renal acidosis; in this report two unrelated boys had both the acidosis and ovalocytes.)


616. Ganesan, J., et al. Abnormal hemoglobins, glucose-6-phosphate dehydrogenase deficiency and hereditary ovalocytosis in the Dayaks of Sarawak. *Human Heredity* 25:258-262, 1975. (In Sarawak about 4% of Iban and 5% of Bidayuh males were enzyme deficient.)


618. Handoko, Y., et al. Length variation in the COH-tRNA^lys^ intergenic region of mitochondrial DNA in Indonesian groups. *Human Biology* 73 (2):205-223, 2001. (On Palangkaraya, Central Kalimantan “Dayaks,” who were screened for three generations of Dayakness before inclusion in the study but without acknowledging that Dayak is a generic term in both anthropology and genetics; see also #647 concerning ethnic identity.)

620. Hurles, M. E., et al. Y chromosome evidence for the origin of oceanic-speaking peoples. *Genetics* 160:289-303, 2002. (Studied 11 populations, including Banjarmasin in South Kalimantan and Kota Kinabalu in Sabah and found 18 DNA lineages; Banjarmasin had 5 of them and Kota Kinabalu had 11, including the 5 found in southern Borneo; both Borneo sites had more genetic diversity than the Filipinos or Taiwan aborigines, who had 2 lineages in common with Borneo; another lineage was exclusive to north and south Borneo while still another extended from Southeast Asia through Melanesia to Polynesia.)


622. Jasdi Mohd. Ismail. Thalassemia and hemoglobinopathies in Brunei Darussalam. *MJM* 47 (2):98-102, 1992. (Hemoglobin E was found in Malays and thalassemia in Malays and “indigenous tribes.”)


628. Lie-Injo, L. E., J. Chin, and T. S. Ti. Glucose-6-phosphate dehydrogenase deficiency in Brunei, Sabah, and Sarawak. *Annals Human Genetics* 28:173-176, 1964. (On Land Dayak, Iban, Murut, Kadazan, Bajau, Bisaya, Malays; among males, 12% of Sarawak Malays and 6% of Brunei Malays were deficient, 24% of Sabah Muruts were deficient, and up to 12% of other Sabah males were deficient.)


633. Lyn, P. C., H. C. Teh, and R. Mulvey. The management of beta-thalassemia in an urban district hospital. *MJM* 40:3-10, 1985. (Local ethnic groups in Sandakan, Sabah, had equal frequencies of this inherited form of anemia.)


637. Metcalf, P. Bornean adoption practices. *SMJ* 22:275-286, 1974. (Berawan women induced abortions to stop premarital pregnancies that evoked social censure; 16% of the group studied had been adopted at a young age: adoption is often a confounding variable in genetic studies on Borneans and other people.)

638. Nicolaisen, I. Form and function of Punan Bah ethno-historical tradition. *SMJ* 24 (45):63-95, 1978. (Shows how group fusion, or “compositing,” occurs in the Kajang language group of Sarawak; see also #647 for related findings.)


642. Rabe, T., et al. South-East Asian ovalocytosis among the population of the highlands of Madagascar: a vestige of the island’s settlement. *TRSTMH* 96 (2):143-144, 2002. (This genetic trait, possibly studied in the Barito area of S. Borneo, was found in 0.76% of school children.)


646. Schurr, T., and D. Wallace. Mitochondrial DNA diversity in Southeast Asia populations. *Human Biology* 74 (3):431-452, 2002. (Compared a Sabah sample studied by #610 to those of other Southeast Asians; concluded that Sabahans and Malays were similar.)

647. Sellatto, B. *Nomads of the Borneo Rainforest.* Univ. Hawaii Press, Honolulu, 1994. (Notes that Kalimantan ethnic groups or subgroups, such as the Aoheng, have merged or changed their name; this confounds population-genetic analyses; reports that twins, believed to bring bad luck, suffered infanticide.)


658. Thong, M. K., et al. A single large deletion accounts for all of the beta-globin mutations in 20 families from Sabah (North Borneo), Malaysia. *Human Mutation* 13 (5):413-417, 1999. (20 Dusun children were homozogous for this thalassemic deletion.)


662. Zaliha Suadi et al. STR data for the AmpF/STR identifier from the three main ethnic indigenous population groups (Iban, Bidayuh, and Melanau) in Sarawak, Malaysia. *J. Forensic Sci.* 52 (1):231-234, 2006. (No home locations, ages, or ancestral details are mentioned for the sample of 518 that was studied, thus making the report of little value to geneticists; but the authors conclude that the DNA data obtained can determine exclusion of paternity in legal cases.)


**IX. Goiter**


665. Bee, Y. S. A study of the prevalence of endemic goiter in an inland Iban community, Sarawak. *MJM* 40 (3):243-246, 1985. (On the Entabai area, Sixth Division; 70% of females and 24% of males had goiter; iodized salt was used irregularly.)


667. Chen, P. C., and P. Lim. The prevalence of endemic goiter in the Tinjar area, Sarawak. *MJM* 37 (3):265-269, 1982. (On Iban, Kenyah/Kayan: in all groups more than 60% of both sexes over 5 yrs. of age were goitrous, but 78% of the women were goitrous.)


Chinese in Keningau town, the Biah Resettlement Scheme, the Dalit subdistrict, and the Pagalungan subdistrict; found 77% of females over the age of 15 years were goitrous; only 3% in the Dalit subdistrict used iodized salt; Sabah had no legislation at the time for iodizing salt.)

670. Chen, P. C. *Penans*. Pelanduk, Petaling Jaya, Malaysia. 1990. (Nomadic Penans obtained iodine-rich salt extracted by Kelabits from hot springs, but recent settlement led to a switch to iodine-deficient, imported rock salt; in one up-river Penan settlement, 92% of all adults were goiterous.)

671. Foo, L. C., et al. Endemic goiter in the Lemanak and Ai river villages of Sarawak. *SEAJTMPH* 25 (3):575-578, 1994. (32% of the Iban in Lubuk Antu District over 10 yrs. of age had goiter but women in the Ai area were the worst: 75% had goiters.)

672. Foo, L. C., et al. Iodization of village water supply in the control of endemic iodine deficiency in rural Sarawak, Malaysia. *Biomedical Environmental Sci*. 9 (2-3):236-241, 1996. (As late as 1993, 75% of women in the Ai area and 49% in the Lemanak area of Lubok Antu District had goiters despite the availability of government-provided iodized salt for decades; after iodization of the water supply was introduced in three longhouses—Budit, Jarau, and Linggang—goiter prevalence dropped by at least 23%.)


674. Foo, L. C., N. Mahmud, and N. Satgunasingam. Eliminating iodine deficiency in rural Sarawak, Malaysia: the relevance of water iodization. *American J. Public Health* 88 (4):680-681, 1998. (On Nanga Kesit and Nanga Tubu student hostels in Lubuk Antu District; school children were tested for thyroid function and found to have substantial goitrogen consumption and mild iodine deficiency despite the availability of iodized salt; installation of an iodinator in the water supply at Nanga Kesit resulted in improved thyroid function there.)

675. Kiyu, A., Zainab bt. Tambi, and Yahya Ahmad. Iodine deficiency disorders in Sarawak, East Malaysia. *A-P J. Clin. Nutr*. 7:256-261, 1998. (By 1997, 300 villages and 40 government boarding schools had an iodated water supply which reduced the local prevalence of goiter significantly, but 7.5% of neonates studied in Kuching, Bau, and Simunjan were iodine-deficient, with the highest proportion in more rural Simunjan.)

iodine-deficient, very few 8-year-olds or their mothers in the three locations were
goitrous, indicating that neonatal iodine deficiency can be overcome as children grow and
develop.)

677. Maberly, G. F.  *The aetiology, treatment, and prevention of endemic goiter in Sarawak.*
Division, Lubok Antu, and the upper Lemanak; notes cassava is a potent goitrogen.)

1976.  [On Iban in the Ai region (99% with goiter), at Rubu on the Sebuyau River (74%),
and at coastal Bajong south of Sebuyau (low %); cretinism (4%) found only at Ai; women
tended to have urinary tract infections.]

*Current Thyroid Problems in Southeast Asia and Oceana.*  B. Hetzel, ed.  Stamford

680. Maberly, G., C. Eastman, and J. M. Corcoran.  *Thyroid hormone response to thyrotropin –
releasing hormone stimulation in subjects from endemic goiter regions of Sarawak.*


682. Ogihara, T., et al.  *Serum thyrotropic levels of natives in Sarawak.*  *J. Clinical
Endocrinology Metabolism* 35 (5):711-715, 1972.  (On Upper Rejang Iban at Rumah
Juing, R. Dinggai, R. Rawing, and R. Munan; 33% of females and 8% of males were
goitrous; the prevalence increased from age 10 to age 60; dietary iodine was deficient.)

*Endocrinology Japan* 19 (3):285-293, 1972.  (On Upper Rejang Iban; the iodine content
of drinking water was very low; no cretins or deaf-mutes were found.)

684. Polunin, I.  *Endemic Goiter in Malaysia. Assignment Report.*  Regional Office for the
Western Pacific.  WHO, 1971.  (In the 1960s, 39% of Sarawak females had visible
goiters.)

685. Sellato, B.  *Salt in Borneo.*  In *Le Sel de la vie in Asie du Sud-Est.*  Prince of Songkla Univ.,
Bangkok, 1993.  Pp. 263-284.  (States that Penan and Bukat had no more goiter than
coastal people did; Kayan and Kenyah on the Baram once obtained naturally iodized salt
from the Kelabit Highlands through trade; when Dutch rule clamped down on salt
imports, some Kalimantan groups migrated to Sarawak where they obtained both salt and
relief from goiter.)
686. Taha, A. M., et al. Survey of availability of iodine-enriched salt in Sarawak. *MJM* 50 (4):391-395, 1995. (In some rural areas iodized salt was not readily available; this was an obstacle to solving the goiter problem in the state.)


X. Leprosy


693. Chen, P. C., and H. C. Sim. The development of culture-specific health education packages to increase case-finding of leprosy in Sarawak. *SEA/JTMPH* 17 (3):427-432, 1986. (The health-education program was a success.)


695. Goldblatt, J. Life after leprosy. *Student British Med. J.* (February):28-29, 1999. (On the Rajah Charles Brooke Memorial Hospital near Kg. Sinar Baru and Kuching; previously, courts sent patients with Hansen’s disease from Sarawak, Sabah, Brunei, and Indonesia to this hospital but now such patients are treated at outpatient clinics and the hospital largely provides antenatal and postnatal services for the local population.)

a leprosy control program in Sabah; found that a few relatives of registered leprosy cases (Rungus, Bajaus, Obians, Kadazans, and Sungeis) also had leprosy; some demographic data, such as a sex ratio of 109 males to 100 females with a preponderance of males among the elderly; only 10% of households surveyed had potable water supplies.]


701. Morrison, A. *Fair Land Sarawak*. Southeast Asian Program, Cornell Univ., Ithaca, New York, 1993. (Noted that during the colonial period, Sarawak lepers who had been cured were given a “graduation” scroll certifying their cure, in order to encourage their communities to accept them home again.)


**XI. Malaria**


705. Anonymous. *Report on the malaria situation and antimalaria activities in the province of South Kalimantan during Pelita III*. (Official document of the Provincial Health Services, South Kalimantan.) No date.

(Studied 8 sites in Malaysian Borneo; found the parasites were genetically independent and geographically rather isolated, helping to make it feasible to eradicate the remaining parasitic foci.)

(Discussed similarities and differences in malaria pressure on human gene pools in E. and W. Malaysia.)

(Discussed past selective pressure by widespread malaria on inherited blood traits.)


710. Chang, M. S., et al. Changes in the abundance and behavior of vector mosquitoes induced by land use during the development of an oil palm plantation in Sarawak. *TRSTMH* 91:382-386, 1997. [While malaria vectors declined, dengue vectors increased and the vectors of Japanese encephalitis (JE) held steady in this Ulu Suai area of Miri Division; in 1994 only 24 cases of JE were recorded in Sarawak.]


712. Cheng, F. Y. Deterioration of thatch roofs by moth larvae after house spraying in the course of a malaria eradication programme in North Borneo. *Bull. WHO* 28:136-137, 1963. (A Sabah chief, O. K. K. Sodomon, complained of thatch damage by DDT; tests in N. Keningau showed DDT led indirectly to higher moth densities; tests in S. Keningau showed that dieldrin suppressed moth populations.)


714. Clyde, D. F., C. M. Han, and Y. S. Huang. Resistance to chloroquine of Plasmodium falciparum from Sabah. *TRSTMH* 67:146 only, 1973. (The parasite from a Kadazan woman patient in Beaufort hospital was tested in vivo in Maryland.)
715. Colbourne, M. J., W. H. Huehne, and F. Lachance. The Sarawak anti-malarial project. *SMJ* 9:215-248, 1959. (In the Baram area, the malarial parasite rate in children was 36% in 1952 but down to 3% by 1957; other areas showed similar improvement.)


717. Comm, S. A., I. Noorhidayah, and A. Osman. Migrasi bemusim: pengaruhnya terhadap kawalan malaria di sabah [Seasonal migration: a case control study of malaria prevention in Sabah]. *MJM* 54 (2):200-209, 1999. (Tawau people who sojourned in the forest and did not use bednets there were particularly vulnerable to malaria.)

718. Copeland, A. The Muruts of North Borneo: malaria and racial extinction. *Lancet* 228:1233-1239, 1935. (Mainly on the Interior Residency, especially Tenom; Muruts were dwindling but Dusun were increasing.)


721. Cox-Singh, J., et al. Plasmodium knowlesi malaria in humans is widely distributed and potentially life threatening. *Clinical Infectious Diseases* 46 (2):165-171, 2008. (Studied malaria patents in 12 hospitals in Sarawak and blood films from 15 districts in Sabah and 4 districts in Pahang; found that Plasmodium knowlesi, not Plasmodium malariae, is a significant cause of severe malaria in Malaysia.)

722. Cross, J. H., et al. Parasitology survey and seroepidemiology of amoebiasis in South Kalimantan (Borneo), Indonesia. *SEA/TMPH* 6 (1):52-60, 1975. (Studied malaria and intestinal parasites in 7 villages; 97% of the population had intestinal parasites and 4% had malaria.)

723. Cross, J. H., et al. Parasitic infections in humans in West Kalimantan (Borneo). *Tropical Geography and Med.* 28 (2):121-130, 1976. (Studied malaria, filariasis, and intestinal parasites in 8 villages; 97% of the population had intestinal parasites, 6% had malarial parasites, and 4% had filariasis.)

724. de Zulueta, J. Malaria in Sarawak and Brunei. *Bull. WHO* 15:651-671, 1956. (On Bidayuh, Iban, Kenyah, Kayan, Punan, Murut, Bisaya, Chinese, Malays; found field hut
sojourns increased malaria incidence.)

725. de Zulueta, J. Dealing with malaria in the last 60 years. A personal experience. *Parassitologia* 42 (1-2):87-90, 2000. (Based on his work in Sarawak, Brunei, and elsewhere.)


733. Fryauff, D. J., et al. Chloroquine-resistant *Plasmodium vivax* in transmigration settlements of West Kalimantan, Indonesia. *Am. J. Trop. Med. Hyg.* 59 (4):513-518, 1998. [Studied 9 transmigration sites (largely Javanese) and Dayak villages in the Ketapang District; the transmigration sites had more malaria, largely vivax, than the villages; vivax cases were often chloroquine-resistant.]

734. Gandahusada, S. B. Nainggolan, and P. Djokopitoyo. The impact of DDT spraying and malaria treatment on the malarial transmission in a hypo-endemic area of South Kalimantan. *Bull. Health Studies Indonesia* 11 (2):10-17, 1983. (Studied Batu Tunku transmigrant settlement and Panyipatan, a “native” village; most malaria found was vivax.)


Kadazans, Bajaus, Chinese, and “other” malaria patients in Kota Kinabalu; about 10% of them had G6PD deficiency.)


749. Koh, K. H., P. H. Chew, and A. Kiyu.  A retrospective study of malaria infections in an intensive care unit of a general hospital in Malaysia.  *Singapore Med. J.* 45 (1):28-36, 2004.  (Over six years, the unit at Sarawak General Hospital in Kuching saw 31 cases of severe malaria; 21 cases were due to *Plasmodium falciparum* infection and experienced high mortality; in 2001 Sarawak had 3,145 malaria cases, 67% being the vivax type; aggressive anti-malarial medication in the early stages proved beneficial.)


762. McArthur, J. The transmission of malaria in Borneo. *TRSTMH* 40 (5):537-558, 1947. (Found that malaria in the Tambunan plain of Sabah, inhabited by Dusun, was associated with rainforest, not with cleared land.)


773. Seleena, P., et al. Space spraying of bacterial and chemical insecticides against Anopheles balabacensis Biais for the control of malaria in Sabah, East Malaysia. *SEAJTMPH* 35 (1):68-78, 2004. [In three treated villages (Pahu, Togop Laut, and Pinawanti), malaria decreased; the untreated village was Tarawas.]


776. Strahan, J. Malaria in Sarawak. *MJM* 2 (2):83-92, 1947. (Found relatively low parasitemia in a small sample of Kedayan in the Miri area; inland areas such as Quap, home to Bidayuh, had higher rates, although few data are provided.)


782. Vythilingam, I., et al. The impact of development and malaria control activities on its vectors in the Kinabatangan area of Sabah, East Malaysia. *Acta Tropica* 96 (1):24-30, 2005. (The impact has been a lessening of malaria.)

783. Vythilingam, I., et al. Natural transmission of Plasmodium knowlesi to humans by Anopheles lateens in Sarawak. *TRSTMH* 100 (11):1087-1088, 2006. (Found this Anopheles mosquito transmits knowlesi-type malaria to both macaques and humans; it is a forest-fringe feeder, mainly at dusk.)


XII. Mental Health

785. Appleton, A. L. *Acts of integration, expressions of faith: madness, death, and ritual in Melanau ontology*. Ph. D. dissertation, Massey Univ., New Zealand, 2004. (Discusses, for example, psychological aspects of post-pregnancy syndromes and familial cancer in terms of attitude toward health facilities; points out that traditional Mukah-area healers are experts at mental illness, treating the whole family, and using locally familiar ways to do so.)


788. Barnes, G. T. A Melanau curing ceremony (*payun*) at Mukah. *SMJ* 14:28-29, 1966. (To cure severe depression Melanau traditionally started with herbal medicine and charms, then anointing a sago-pith spirit image and also the patient as well as other rituals, followed by government or Chinese medicine, and finally a long payun drumming, incense, and trance ceremony.)

early fieldwork was at Ulu Bayor, Saribas area.)


795. Barrett, R. J., et al. Rates of treated schizophrenia and its clinical and cultural features in a population isolate of the Iban of Sarawak: A tri-diagnostic approach. *Psychological Med.* 35 (2):281-293, 2005. (0.4 to 1.1% of Iban in one river basin were estimated to be schizophrenic.)


798. Crabtree, S. A. Exclusion and stigma: implications for community psychiatric services in Sarawak. *Asia-Pacific J. Soc. Work* 9 (1):114-126, 1999. (Most patients at Hospital Kota Sentosa in Kuching had schizophrenic psychosis but a few had mental retardation or epilepsy; men patients were treated more laxly than were women.)


800. Crabtree, S. A. Malaysia women service users and the economies of the psychiatric asylum system. *Feminism & Psychology* 15 (1):87-97, 2005. (Women patients were given tasks,
perhaps as a form of occupational therapy.)


805. Nissom, M. P., and K. E. Schmidt. Land Dayak concept of mental illness. MJM 21:352-357, 1967. (Bidayuh distinguished mental defect from mental illness such as mania or schizophrenia but did not regard epilepsy as a mental illness; mental illness was considered to be treatable by rituals but mental retardation was not.)


810. Schmidt, K. E. The racial distribution of mental hospital admissions in Sarawak. Review and Newsletter of Transcultural Psychiatric Research, No. 11:17-18, (1959 or 60). (This is the Annual Report, Sarawak Mental Hospital, 1959.)

812. Schmidt, K. E. Folk-psychiatry in Sarawak: a tentative system of psychiatry of the Iban. In *Magic, Faith, and Healing*. A. Kiev, ed. Collier-Macmillan, New York, 1964. Pp. 139-155. [Iban considered most illness, including mental illness, as being due to supernatural beings; they had separate terms to describe or to diagnose dozens of kinds of mental problems; Malays were particularly prone to latah (echolalia with socially inappropriate behavior) and in the 1940s to neurosyphilis.]


820. Sutlive, V. H., and J. Sutlive, eds. *The Encyclopaedia of Iban Studies*. Tun Jugah Foundation, Kuching, 2001. [According to Iban traditional mores (adat), a recognized cause for divorce is when a spouse has been mentally ill or leprous for two years or longer, with certification by a hospital.]

821. Swami, V. Beliefs about schizophrenia and its treatment in Kota Kinabalu, Malaysia. *Internat. J. Soc. Psychiatry* 54 (2):164-179, 2008. (Interviewees of several ethnic groups favored social-environmental explanations for schizophrenia, with Malays emphasizing a social cause, a belief that schizophrenic behavior is sinful, and a belief that mental hospitals do not provide effective treatment.)

Muslim Melanau, but not among non-Muslim Melanau; it is lowland-coastal, not found in the interior.)

823. Winzeler, R. *Latah in Southeast Asia*. Cambridge Univ. Press, Cambridge, 1995. (On Bukit-Sadong and Selako Bidayuhs; Sebuyau, Saribas, and up-river Ibans; Melanaus; and Malays.)


**XIII. Nutrition**


826. Anderson, A. Sago and nutrition in Sarawak. *SMJ* 25:71-80, 1977. (2% of Tellian River Melanau children had xerophthalmia, due to vitamin A deficiency.)


831. Anderson, A. Nutrition of Iban children of the Sut and Mujong Rivers. *J. Tropical Pediatrics* 27:26-35, 1981. (Noted the diet of prenatal and postnatal Iban women was maladaptive in the 1970s; found 63% of the children studied were stunted, 30% were anemic, 30% had vitamin A deficiency, and under-nutrition was widespread; recommended family planning education.)


Bidayuh; as part of an anti-malnutrition program, Tebakang area primary schools all had demonstration gardens and fruit trees, and they raised chickens; communal gardens were fostered by donating seeds and technical advice; nutritious food baskets were provided to needy families.)


836. Bee, Y. S. The nutritional status of Iban preschool children, Sarawak. *MJM* 40 (3):185-190, 1985. (On Entabai Iban; 68% were wasted or stunted.)


840. Chalmers, L. Overlaps in the indigenous knowledge traditions of Iban women. *Dialectical Anthropology* 23:151-185, 1998. (Notes that cassava, although goitrogenic, is served even at ritual meals by the Baleh Iban.)


842. Chen, P. C. Ecological factors influencing the growth of the child. *MJM* 34:6-12, 1979. (Reports 30% of Muruts ate goitrogenic cassava tubers or leaves at least once a week.)

843. Chen, P. C. Ecological basis of malnutrition among the Muruts of Sabah. *MJM* 38 (1):9-14, 1983. (Found that resettled Muruts at Ulu Ansip in Keningau District were swiddeners; malaria was endemic; the diet was varied but seasonal food shortages
844. Chen, P. C.  Child nutrition among the Penans of the Upper Baram, Sarawak.  *MJM* 39:264-268, 1984.  (75% of the children in the Lio Matu area were stunted.)

845. Chen, P. C., et al.  *A Nutritional Study of the Interior, West Coast, and Kudat Divisions of Sabah.*  Univ. Malaya, Kuala Lumpur, 1981.  (On several ethnic groups; among 3672 children, only 41% were nutritionally normal; Muruts were the most malnourished group.)


848. Chong Yoon Hin.  Nutrition.  In *Tropical Disease Research in Sabah.*  IMR Bull. No. 20, Kuala Lumpur, 1983.  Pp. 77-89.  (Studied six villages in the Kudat Residency; 87% of preschool children were malnourished, with 42% stunted and 8% wasted; 48% of these children and 28% of the women studied were anemic.)

849. Christensen, H.  *An ethnobotanical survey of the flora used by two longhouse communities in Sarawak and an evaluation of their agronomic potential for agroforestry-based farming systems.*  Ph. D. dissertation, Univ. Aarhus, Risskov, Denmark, 1997.  (Iban at Nanga Sumpa ate 160 plant species in the 1990s; they also had 105 varieties of rice and 16 of cassava; also studied Pa Dalih Kelabit.)

850. Christensen, H.  Economic importance of wild food in a Kelabit longhouse community in Sarawak, Malaysia.  In *Borneo2000: Ethnicity, Culture, and Society.*  M. Leigh, ed.  UNIMAS, Kuching, 2000.  Pp. 356-368.  [At Pa Dalih, most high-protein food came from wild species of mammals and fish (over 30 species); 33 species of wild vegetables and many kinds of mushrooms were also eaten; also studied Nanga Sumpa.]


852. Christensen, H.  Fallows and secondary forests—a primary resource for food.  Borneo Research Council, Kota Kinabalu, 2002.  (On Sarawak; at Nanga Sumpa in the 1990s, 103 edible, wild plant species were being foraged by Iban and at Pa Dalih 68 wild species were foraged by Kelabit.)


855. Dounias, E., et al. From sago to rice, from forest to town: the consequences of sedentarization for the nutritional ecology of Punan former hunter-gatherers of Borneo. *Food and Nutrition Bull.* 28 (2) (suppl.):s294-s302, 2007. (The diet of three E. Kalimantan Punan groups who have been cultivating upland rice for six decades was assessed; the remotest group had the best nutritional status and physical fitness; while access to forest resources decreased with urban proximity, sedentarization itself was the main cause of loss of physical fitness.)

856. Duffield, A. E., and S. S. Strickland. Nutrition in Sarawak: its relationship to development. In *Rural Development and Social Science Research: Case Studies from Borneo*. V. King, ed. Borneo Research Council, Phillips, Maine, 1999. Pp. 131-158. (The proportion of Iban adults in Song and Kanowit Districts who had chronic energy deficiency increased from 16% to 19% between 1990 and 1996, with people over age 60, particularly women, appreciably thinner; 34% of the pregnant women studied had moderate to severe anemia; in 1987 the frequency of low-birth-weight newborns in Sarawak was 10%.)


860. Foo, L. H., et al. Iron status and dietary iron intake of adolescents from a rural community in Sabah, Malaysia. *A-P J. Clin. Nutr.* 13 (1):48-55, 2004. (In a fishing village in Tuaran District, 5% of the boys and 26% of the girls studied had iron-deficiency anemia; 98% of the adolescents studied had low dietary iron intake.)

861. Foo, L. H., et al. Determinants of iron status in Malaysian adolescents from a rural community. *Internat. J. Food Sciences Nutrition* 55 (6):517-525, 2004. (In a Sabah fishing village, dietary intake of protein and vitamin C was adequate but intake of most nutrients was not; 10% of the boys and 29% of the girls studied had sub-standard levels of hemoglobin.)
862. Gan, C. Y., et al. The nutritional status of Kadazan children in a rural district in Sabah. *SEAJMTPH* 24 (2):293-301, 1993. (Studied 21 villages in Tambunan District; two-thirds of the children were stunted and 11% of them were wasted.)


864. Hardin, S., and A. Kiyu. Child-minding and nutritional status of children 6-12 months old in Sarawak. *MJM* 46 (4):338-343, 1991. (Data from rural clinics, no ethnic designations; most of the mothers of malnourished infants did farm work, leaving the child in the care of others; infants looked after by their mothers were less likely to be malnourished.)

865. Hew, C. S., and F. Kedit. The Batang Ai dam resettlement and rural Iban women. In *Women Farmers and Rural Change in Asia, Toward Equal Access and Participation*. N. Heyzer, ed. Asia and Pacific Development Center, Kuala Lumpur, 1987. Pp. 163-209. (Discusses women’s problems in finding forest foods and in keeping farm animals in a resettlement setting; previously, over 90% of the women had foraged for wild foods at least weekly.)


871. Ismail, M. N., et al. Obesity in Malaysia. *Obesity Reviews* 8:203-208, 2002. (27 rural Sarawak Dayak women were in negative energy imbalance, expending 25% more energy than they took in, but Dayak men were energy balanced.)


874. Kandiah, M., et al. Malnutrition in malaria endemic villages of Bengkoka Peninsula, Sabah. *J. Tropical Pediatrics* 30:23-29, 1984. (40% of children had intestinal helminths; 37% were stunted or wasted; 44% were anemic; women were also studied.)


881. Meise-Boonstra, A., et al. The potential of various foods to serve as a carrier for micronutrient fortification, data from remote areas in Indonesia. *European J. Clinical Nutrition* 54 (11):822-827, 2000. (Studied S. Kalimantan and S. Sulawesi; to meet nutrient needs, the authors suggested developing means to fortify salt or monosodium glutamate with iodine, vitamin A, and iron.)

882. Michon, G., et al. *Domesticating Forests: How Farmers Manage Forest Resources*. CGIAR-CIFOR, Indonesia. (Covers Southeast Asia small-farm practices of managing forests which maintain biodiversity and provide resources for nutrition and other benefits locally.)

London, 2001. Pp. 39-63. (71% of the population collected wild plants to use as vegetables, largely for their own consumption.)

884. Rampal, L., et al. A national study on the prevalence of obesity among 16,127 Malaysians. *A-P J. Clin. Nutr.* 16 (3):561-566, 2007. (Found 14% of females and 10% of males were obese; 14% of Malays and Indians, 11% of Sarawak indigenous peoples, and 7% of Sabah indigenous peoples were obese; obesity more than doubled in Malaysia over the previous decade.)

885. Ruslikam Dalikah. *Suatu penelitian tentang pelaksanaan pembinaan kesejahteraan keluarga dalam membina keluarga sehat di Desa Pahandut, Kotamadya Palangka Raya laporan penelitian perseorangan.* Univ. Palangka Raya, Central Kalimantan, 1980. (On family health and nutrition in Desa Pahandut—the original name for Palangkaraya.)


891. Strickland, S. S., and A. E. Duffield. Biosocial significance of the areca nut in South-East Asia. In *Il cibo culture: Dal cibo alla cultural al cibo.* A. Guerci, ed. Erga eduzuine, Genova, Italy, 1999. Pp. 37-51. (The only project that studied alcohol drinking in Sarawak; weekly drinking in Iban men was 5 times more frequent than in women; found 47% of non-pregnant Iban women were anemic versus 40% of Iban men.)

892. Strickland, S. S., and S. J. Ulijaszek. Energy nutrition of Iban of Song and Kanowit—April,
1990. SMJ 43:135-196, 1992. (Morbidity of Iban children under 10 years of age was 51%; adults had 39% morbidity, with men having more complaints than women did; women over age 40 were much thinner than younger cohorts, due to chronic energy deficiency.)


899. Tee, E. S., et al. School-administered weekly iron-folate supplements improve hemoglobin and ferritin concentrations in Malaysian adolescent girls. American J. Clinical Nutrition 69:1249-1256, 1999. [19% of Asajaya, Semera, and Muara Tuang secondary school girls in the Samarahan District of Sarawak were moderately or severely anemic (less than 12 g hemoglobin/dl); weekly iron-folate supplementation for 22 weeks lessened this anemic impact substantially.]

900. Tee, E. S., et al. Current status of nutrition labeling in the South-East Asian region: are we in harmony? A-P J. Clin.Nutr. 11 (2): s80-s86, 2002. (Among 6 Southeast Asian countries, only Malaysia has general, mandatory nutrition labeling requirements; Indonesia and the Philippines permit health claims to be made on food products.)

vegetables that are free of pesticides, offer potential for commercialization.)


904. Webb, K, E., N. J. Horton, and D. J. Katz. Parental IQ and cognitive development of malnourished Indonesian children. *European J. Clinical Nutrition* 59 (4):618-620, 2005. (In this W. Kalimantan study, severely stunted children had the lowest IQs; parental IQs were an important factor in childhood stunting.)

905. Wee, C. H., et al. Poverty, child nutrition and child care amongst urban squatters in Kuching City, Sarawak. Fourth Borneo Research Council Conference, Univ. Brunei Darussalam, June, 1996. (48% of children less than 12 years of age were underweight and a further 13% of them were severely undernourished; Iban and Bidayuh children were worse off than Chinese children.)


908. Yap, C. P. *Nutritional assessment of Bidayuh children aged 2 to 6 years in Serian District, Sarawak*. Bachelor of Sci. thesis, Univ. Putra Malaysia, Serdang, 1998/1999. (In Mujat farming village, 84% of the families were poverty-stricken, almost half of the parents of preschool children had never been to school; 18% of these children had been born with low birth weight; over a third of the boys and almost half of the girls had protein-calorie malnutrition and many were deficient in calcium and vitamin A.)

909. Yap, S. B. The nutritional status of Iban preschool children. *MJM* 40 (3):185-190, 1985. (In eight longhouses studied among the Entabai River, almost all households ate enough protein, niacin, and thiamine but the majority were calorie-deficient and low in calcium, riboflavin, iron, and vitamins A and C.)

910. Yap, S. B. Health, literacy, and food beliefs among Ibans, Sarawak. *MJM* 40:294-300, 1985. (50% of young Iban children in the Entabai area were underweight and 25% were stunted.)

911. Yeo, S. S., and A. K. Azahari. *Food, Nutrition, and Health Promotion: Research*

913. Zaleha, M. I. Micronutrients and its [sic] correlation with mental performance among school children in Bario, Sarawak. *MJM* 58 (3):309-319, 2002. [Studied iodine and other micronutrient intake vs. IQ test ratings of 7-12 year olds; they had ample micronutrients but test scores clustered below the norm of 100, with girls scoring lower than boys; tested well water at Pa’ Main, Pa’ Umor, and Long Banga for iodine; also contrasted Bario results with those from Semai children in W. Malaysia.)


XIV. Sexually Transmitted Infections (STIs)

915. Catterall, R. D. Sexually transmitted diseases in Sabah and Sarawak. *British J. Venereal Disease* 57 (6):363-366, 1981. (Noted that physicians seldom asked men infected with STIs about their sexual contacts, so the contacts were not warned by the physician as to their risk of contracting an STI; the incidence of STIs was not reliably known in these two states, although gonorrhea appeared to be the most common STI in Sarawak; no organized treatment services were available; a specialized service for diagnosis and treatment was recommended.)

916. Chong, G. HIV/AIDS in Sarawak. *Sarawak Gazette* 126, no. 1539:12-15, 1999. (30% of HIV cases in Sarawak are married couples, and are heterosexual, not homosexual, but safe-sex practices are uncommon.)


919. Rabi’ah Abdul Ghani and A. Kiyu. Knowledge and attitudes of AIDS seminar participants regarding various aspects of HIV infection. *Sarawak Gazette* 122, no. 1533: 20-24, 1995. (Knowledge about AIDS and safe-sex practices was poor among participants.)


922. Sigarlaki, H. G. Characteristics and knowledge about HIV/AIDS and drug abuse associated with inmates’ education level within prison populations in Singkawang, West Borneo in 2006. *Acta Med. Indonesia* 40 (3):129-134, 2008. (Most of the prisoners were male Malays; those with senior high school education were better informed about AIDS and drugs.)


925. Tregonning, K. G. *A History of Modern Sabah (North Borneo 1881-1963)*. Univ. Malaya Press, Singapore, 1965. (P. 163 states that 80% of Muruts examined in the 1930s had gonorrhea.)


**XV. Tuberculosis**


929. Chang, C. T., and A. Esterman. Diagnostic delay among pulmonary tuberculosis patients in Sarawak, Malaysia: a cross-sectional study. *Rural and Remote Health* 7 (2):667 only, 2007. (Studied 10 TB clinics throughout Sarawak; found patients, particularly females, delayed consulting a clinic, and clinic diagnosis was also slow; noted delay can increase
infectivity in a community and also lead to a severe form of TB.)


936. Dony, J. F., J. Ahmad, and Y. Khen Tiong. Epidemiology of tuberculosis and leprosy, Sabah, Malaysia. *Tuberculosis* 84 (1-2):8-18, 2004. (Cases of TB declined in Sabah from 1990-2001 with a quarter of new cases being in immigrants; during this period, the treatment success rate increased and the mortality rate decreased; Sabah has the highest caseload of leprosy of any Malaysian state and 5 districts in the state exceeded 1 case per 10,000 population, which is the goal for all districts; the aim in Sabah is to break the chain of transmission of the causative Mycobacterium species for these two diseases.)

937. Jenarum Jelip et al. Risk factors of tuberculosis among health care workers in Sabah, Malaysia. *Tuberculosis* 84 (1-2): 19-23, 2004. (Sabah has 30% of all Malaysian TB cases, and TB affects health care workers in the state more than it does the general population; TB among health workers was associated with not using respiratory protection in high-risk situations; TB screening every two years was advised for these workers.)

938. Koay, T. K. Knowledge and attitudes towards tuberculosis among the people living in Kudat Division, Sabah. *MJM* 59 (1):502-511, 2004. (People knew little about the cause of TB and had negative attitudes toward it, thinking it dirty, embarrassing, or a disgrace.)


942. O’Boyle, S. J., et al. Factors affecting patient compliance with anti-tuberculosis chemotherapy using the directly observed treatment, short-course strategy (DOTS). *J. Tuberculosis and Lung Disease* 6 (4):307-312, 2002. (In Sabah, non-compliant patients experienced more costs and time to get to the treatment center than did compliant patients; when symptoms stopped, non-compliers were also more prone to think they were disease-free and to stop treatment all together.)


950. Warren, G. A report on the incidence of positive tuberculosis skin test reactions and the incidence of active tuberculosis among children in the Methodist schools, Kapit District, Sarawak. *MJM* 20 (2):123-125, 1965. [73 of 403 Dayak students (18%) had positive skin reactions; Chinese and Malay children had higher positive rates; 2 of the Dayaks had active, pulmonary tuberculosis; Kapit-living Dayaks, ages 5-21 years, had a higher positive rate (29%) than did up-river Dayaks, ages 5-16 years (9%).]


XVI. Typhus


956. Sagin, D. D., et al. Rickettsial infection in five remote Orang Ulu villages in Upper Rejang River, Sarawak, Malaysia. *SEAJTMPH* 31:733-735, 2001. (Studied Kayan at Murum and Linau, Ukit at Ayak, Penan at Lesong Laku, and Kenyah at Sah; about 10% of adolescents and adults had had a typhus infection, usually tick typhus.)


958. Taylor, A. C., et al. A serological survey of scrub, tick, and endemic typhus in Sabah. *SEAJTMPH* 17 (4):613-619, 1986. (On Tidong, Dusun, Murut, Iban; scrub typhus was rare in study populations but more common in rural W. Malaysia; 11% of rural Sabah villagers lacked necessities such as food.)


XVII. Women’s health
960. Abu Bakar Suleiman et al. A strategy for reducing maternal mortality. *Bull. WHO* 77:190-192, 1999. (20% of maternal deaths in Malaysia in the early 1990s had associated anemia; women over 35 were the highest risk group for mortality; theoretically, over 52% of the deaths were preventable; recommended better education for medical staff about hypertension during pregnancy and postpartum hemorrhaging, especially for young, inexperienced doctors; Sarawak’s maternal death rate in the 1990s was 47 per 100,000
live births but fell thereafter.)


965. Edwards, J. M. Cultural perceptions of reproduction and family planning behavior among the Iban of Sarawak. Preliminary research report, 1999. (Iban women disdained condoms and described them as funny.)


970. Jegasothy, R. Sudden maternal deaths in Malaysia: a case report. J. Obstetrical Gynaecological Research 28 (4):186-193, 2002. (Indigenous women of E. and W. Malaysia, totaled together, had the highest rate of maternal deaths in the country, 92.4 per 100,000 deliveries, for the category of sudden maternal deaths their rate was even higher; while no data are available on E. Malaysia alone, most indigenous women live on the Borneo side; Malays, Indians, and Chinese had very low maternal death rates.)

972. Kedit, P. M. “Meanwhile back home…” Bejalai and their effects on Iban men and women. In *Female and Male in Borneo*. V. H. Sutlive, ed. Borneo Research Council, Williamsburg, Virginia, 1991. Pp. 295-316. (Iban women reported that when their family men were away, they became fatigued and ill due to the heavy farm workload and, at times, due to their children’s ill health.)


974. Kwa, S. K. Breastfeeding and the use of maternal health services in Sarawak. *Malaysian J. Reproductive Health* 11 (1):8-19, 1993. (Based on data from the 1980s, Sarawak mothers who delivered in private hospitals breastfed less than did other mothers; they needed to be targeted for breast feeding promotion.)


979. Supratikto, G., et al. A district-based audit of the causes and circumstances of maternal deaths in South Kalimantan, Indonesia. *Bull. WHO* 80 (3):228-234, 2002. (Studied 130 deaths; most were due to hemorrhage and hypertensive diseases; obstetric facilities as well as village midwives were caregivers in these cases; improvements in care were recommended.)


982. Wadsworth, G. R. Weights and blood pressures of women who attend family planning clinics in Sarawak. *MJM* 36 (3):148-150, 1981. (Chinese weighed more and Bidayuh weighed least; systolic/diastolic pressure averaged 112.1/72.4 mm.)

983. Wong, C. M., and Abdullah Mohammed. Rural women’s reproductive health education needs in Malaysia. Abstract. 23rd Annual Conference Program, National Council for International Health, 1996 (reprinted in *Women’s Health Weekly* 08/05/96, pp. 12-13). (On the Tinjar River area in Baram District, Sarawak; noted that 33% of women there had heard of breast self-examination to detect cancer and 17% had heard of Pap smears to detect cervical cancer.)


**XVIII. Journalistic materials**

986. *Antara*, 1 February, 2008. Number of lepers in East Kalimantan up by 159. (The largest number of lepers was in Nunukan District.)


988. *Asiaweek*, 15 September, 1993, p. 39. Sabah’s green treasures; the rain forest proves to be a cornucopia of cures.


990. Bambang Bidor. Mercury spells disaster in W. Kalimantan. *Jakarta Post*, 15 July, 2003. (The Kapuas is muddy and mercury-contaminated due to unlicensed gold mining upstream; river fish contain far more mercury than is safe for human consumption; other river basins are likewise affected.)

991. Bambang Bidor. Haze: a perennial calamity in W. Kalimantan. *Jakarta Post*, 31 August, 2004. (Noted breathing difficulties associated with smoke; air pollution index was over
(Notes Penan must defecate in river which is also their bathing place; housing in the three Belaga areas seen, Sungai Asap, Long Singu, and L. Jaik, was sub-standard and health personnel were insufficient.)

993. *Bernama*, 9 June, 2003. Males account for about 80 pct of HIV infections in Sarawak. (Most cases were in the 20-39 age group.)

994. *Bernama*, 26 April, 2004. Highest number of breast cancers reported in Sarawak. (Over 230 Sarawak cases were reported annually, amounting to 16% of all cancer cases reported in women).

995. *Bernama*, 29 July, 2004. Sarawak housewives face increasing risk of HIV infection. (By 2003, 20% of Sarawak AIDS victims were women, a much higher percentage than for Malaysia as a whole.)

996. *Bernama*, 27 June, 2009. Sarawak close to producing anti-HIV, cancer drugs. [On a latex derivative of the bintangor (Calophyllum) tree for HIV and “Silverstrol” for cancer, according to Sarawak Biodiversity Center scientists.]

997. *Borneo Post*, 9 September, 1999. Blood donation in aid of thalassaemia children in Sabah. (On a community campaign for donating blood, given that more than 700 Sabah children had thalassemia and many needed transfusions.)

998. *Borneo Post*, 4 July, 2000. New mtDNA analysis to speed up crime probes. (Refers to the work published in entry # 662.)


1000. *Borneo Post*, 21 September, 2001. First study on migrant health woes. (Migrants were found to bring new diseases into Malaysia; Sabah was noted as having a large percent of foreign workers.)

1001. *Borneo Post*, 3’ May, 2008. People need better healthcare with all facilities in place, including specialists and doctors. (Sarawak had an acute shortage of doctors for both hospitals and clinics.)

1002. *Brunei Times*, 13 April, 2009. Mukim residents take part in health activities. (Health promotion programs were started in several mukims in 2006; one was started in Mukim Kilanas in 2009 and was celebrated with exhibitions, lectures, and a walkathon.)

1004. Chen, T. S. Sarawak’s oral health drive taking bite. *New Straits Times*, Malaysia, 7 November, 2000. (Due to dental education, school children’s teeth were improving somewhat but were still not good.)


1007. Cook, L. Health care: house calls from afar. *Houston Chronicle*, 6 March, 2009. (A doctor in Houston, Texas diagnosed the heart problem of an oil rig worker 23 miles offshore of Borneo by telemedicine; this avoided an expensive helicopter evacuation to shore.)

1008. Cruez, A. F. Dengue alert: on the verge of an epidemic. *New Straits Times*, Malaysia, 27 September, 2005. (A table of “dengue hotspots” for 2004 and up to 9 September, 2005 showed that Sabah had 638 cases in 2004 and 1302 in 2005 while Labuan had 18 and 29 and Sarawak had 395 and 678, respectively.)

1009. *Daily Express* (E. Malaysia), 19 August, 2004. Nearly one-third of TB cases in Sabah. (Sabah had 28% of all Malaysian cases.)

1010. *Daily Express* (E. Malaysia), 13 August, 2005. Sabah in dire need of healthcare facility for elderly: USM. (The University Sabah Malaysia warned that elderly people with dementia were on the increase.)

1011. *Daily Express* (E. Malaysia), 27 January, 2008. Sabah among top 3 in leprosy cases. (The other two top Malaysian states were Pahang and Sarawak.)

1012. *Daily Express* (E. Malaysia), 21 June, 2009. Sabah students’ oral hygiene at worrying levels. (Only 10% of primary pupils were cavity-free.)


Malaysian states recorded rises in dengue cases in August-September 2008; in 2007 the country had 35,164 cases with 74 deaths; only 34% of patients sought treatment within 3 days of contracting the disease.)

1015. *Eastern Times* (E. Malaysia), 1 August, 2006. Focusing on rural healthcare services. (Plans were announced to build 97 rural health clinics, some new and some as replacements for older structures, plus 13 new urban clinics; the number of mobile clinics for oral health services in rural areas was also to be increased; correct preparation, supply, and quality control of pharmaceuticals were to be emphasized.)

1016. *Eastern Times* (E. Malaysia), 1 August, 2006. HIV/AIDS cases up in Sarawak. (Infection rates increased for timber workers returning home from overseas and for Chinese males; the most vulnerable groups were prostitutes, housewives, factory workers, fishermen, and the unemployed; over the seven year period starting in 1989, 582 new cases of HIV were recorded in Sarawak with 267 of them becoming AIDS cases.)


1019. *Jakarta Post*, 25 November, 2008. HIV/AIDS on the rise in East Kalimantan. (More than 800 new HIV infections were recorded in the previous year but many others were probably not recorded.)

1020. *Jakarta Post*, 8 June, 2009. Number of people with HIV/AIDS on the rise. (On Balikpapan, E. Kalimantan, where 282 people were found to be infected.)

1021. Joseph, K. J. False impression: TB no more health hazard. *Daily Express* (E. Malaysia), 29 March, 2009. (In colonial times tuberculosis was the top killer disease in Sabah; a volunteer association to combat it was started in 1952 and in 1960 the state control program was launched; in the 1990s tuberculosis surged in Sabah.)

accessing treatment found only in urban hospitals; advocates greater healthcare delivery for poor, rural people in Malaysia.)

1024. Keruah Usit. Flogging a white elephant. *Malaysiakini* 24 June, 2009. (An expensive private hospital being built by the Sarawak state government, partly to foster “health tourism,” experienced construction delays and cost overruns; in 2009 the state asked the federal system to take it over, ostensibly to overcome congestion at the Sarawak General Hospital, but the new hospital is not urban-based and the state already has a major shortage of doctors in its existing hospitals.)

1025. Komandjaja, E. C. Indonesia still struggling with nationwide leprosy. *Jakarta Post*, 14 January, 2004. (Lepers are most common in S. Kalimantan and a few other Indonesian areas.)


1028. *Malaysiakini*, 24 January, 2005. Remote Penan tribe under quarantine after measles kills fourteen. (In early 2005, 66 Sarawak Penan contracted measles, to which they had never been exposed previously; all the deaths were at Sungai Urun in Belaga, far upriver from Bintulu.)

1029. *Malaysiakini*, 26 September, 2006. Air pollution hits unhealthy levels in Sarawak. (Haze from Sumatra fires polluted Sarikei and Sri Aman towns, with index readings at unhealthy levels, above 110; Sibu saw readings of 104, also an unhealthy level.)

1030. *New Straits Times*, Malaysia, 24 April, 1997. Hospitals still biased against people with HIV/AIDS. (Reports patients were refused treatment by medical personnel.)

1031. *New Straits Times*, Malaysia, 11 June, 2000. Number of malaria cases up in Sarawak. [3,155 malaria cases and 647 dengue cases (4% with hemorrhagic fever) were reported in 1999.]

1032. *New Straits Times*, Malaysia, 20 November, 2000. Africa must get over sex taboos to fight AIDS scourge. (Malaysia had over 40,000 known HIV infections with some 4000 deaths.)

new study showed that 21% of upland and 16% of lowland vegetables had pesticide residues above the maximum permitted.)

1034. *New Straits Times*, Malaysia, 1 September, 2001, p. 9. Goal of one dentist for every 4,000 by 2020. (Noted that nearly two-thirds of Malaysian dentists are in private, not government, practice.)

1035. *New Straits Times*, Malaysia, 5 September, 2004. (Pulau Mantanani and Pulau Balambangan in Sabah, lacking comprehensive health facilities, were visited by a volunteer medical team.)


1037. Nijjar, S. Buck up or deadly viruses return. *Borneo Post*, 26 September, 1999. (A local government minister in Sabah warned in Penampang against filthy premises, both residential and commercial, that provide breading places for disease-bearing mosquitoes, flies, and rats.)

1038. Nixon, R. M., and A. Scourby. *MD international*. Medical Television Unit, Smith, Kline & French Laboratories, 1956. (When he was vice-president of the United States, Nixon introduced this film, which includes Dr. Harold Brewster working with Iban in the Kapit area whose ills included malaria, tuberculosis, intestinal parasites, and dysentery; Brewster and his staff were shown traveling by boat to remote longhouses to effect treatment and hygiene.)


1041. Pancoast, W. Planting hope for the future. *The Borneo Wire*, Spring, 2000, p. 3. (On Kayan and Penan; native medicinal plants know to cure headache, stop bleeding wounds, etc., were being saved in botanical conservation nurseries for Long Sayan and Uma Bawang Keluan villagers.)

1042. Puvaneswary Devindran. Children infected with HIV/AIDS sent to peninsula. *Borneo Post*, 30 March, 2008. (Sarawak does not have a care facility for such children; Sarawak reportedly had 771 HIV cases, 389 AIDS cases, and 159 AIDS-related deaths from 1989
to October, 2007.)

1043. Rintos Mail. Sarawak has highest reported STD cases. *The Malaysian Today*, 27 June, 2001, p. 5. (In 2001, 40% of reported STIs in Sarawak were syphilis, 60% were gonorrhea, and less than 1% was HIV/AIDS.)

1044. *Sarawak Tribune*, 25 July, 2000, p. 8. (Sarawak had 34 logging-related deaths in 1999 and was building toward more in 2000.)

1045. *Sarawak Tribune*, 2 July, 2000, p. 2. HIV is both health and development problem: Dr Chan. (The Sarawak AIDS Network organized a two-day seminar on “HIV/AIDS and religion.”)

1046. *Sarawak Tribune*, 2 July, 2000, p. 7. Food basket programme gets RM 150,000 annually. (Childhood malnutrition was 37% in Song District, 36% in Kapit District, 25% in Kanowit District, and 36% in Belaga District.)


1048. Sher, R. Is the public healthcare system in disarray? *Malaysiakini*, 21 May, 2009. (Reports on many public health problems in Malaysia, including a rapid spread of malaria in the Bario Highlands of Sarawak.)

1049. Sulok Tawie. More foot and mouth cases in Sarawak. *New Straits Times*, Malaysia, 26 August, 2006. (Over 3000 suspected cases had occurred.)


1052. *The Star*, Malaysia, 2 July, 2000, p. 12. Sarawak records 10 HIV cases in first four months. (In 2000 Sarawak had 2500 new STI cases reported annually but the percentage in females was not stated; a government spokesman said HIV carriers need to be included in society, not feared or shunned.

1053. *The Star*, Malaysia, 1 April, 2007. Cholera outbreak in Sabah contained. (The problem occurred in 3 northern districts; hospitals in Pitas, Kudat, and Kota Marudu admitted many victims; Kgs. Tanjung Kapu, Marabahai, and Mariangin were notably stricken.)

1055. Then, S. Longhouse folks affected by Bakun project seek help. *The Star*, 24 September, 2003. (Food scarcity occurred, including a decline in fish and wildlife, as well as depletion of potable water and an increase in monsoon flooding.)


**LATE INSERTIONS**


1063. Spiegelman, M., et al. Confirmation of the presence of Mycobacterium tuberculosis complex –specific DNA in three archaeological specimens. *Internat. J. Osteoarchaeology* 12:393-401, 2002. (A human ulna bone from Borneo housed in London that predates European contact was found to contain DNA from TB organisms, thus TB was evidently not an invasive disease from Europe.)

1064. Raynore Mering. SGH not equipped for H1N1 tests. *Borneo Post* (on-line), 6 August, 2009. (The General Hospital in Kuching had no facilities to test for the epidemic H1N1 influenza; officials set up a priority system for handling influenza cases and urged those with mild flu symptoms to stay at home so as not to transmit the disease further.)
1065. Anderson, P. Doktor-gigi in the Peace Corps. *J. American Dental Association* 72 (3):576-581, 1966. (An American dentist working in Labuan and Sabah for 2 years sometimes did 45 tooth extractions a day; dental health was poor and dentists were rare.)


1067. Chang, Y. M., et al. Haplotype diversity of 17 Y-chromosomal STRs in three native Sarawak populations (Iban, Bidayuh, Melanau) in East Malaysia. *Forensic Sci. Internat.: Genetics* 3 (3):e77-e80, 2009. (All 3 groups were distinctly different and also different from Malays, Chinese, and Indians in Malaysia.)

1068. Htwe, T. T., et al. Incidence of thyroid malignancy among goitrous thyroid lesions from the Sarawak General Hospital, 2000-2004. *Singapore Med. J.* 50 (7):724-728, 2009. (83% of the sample studied was female but thyroid cancer was not common.)

1069. Teh, C. L., Y. C. Kuan, and J. S. Wong. Systemic sclerosis in Sarawak: a profile of patients treated in the Sarawak General Hospital. *Rheumatology Internat.* 29 (10):1243-1245, 2009. (Most cases were female but the condition was rare.)


1072. Lee, K-S., J. Cox-Singh, and B. Singh. Morphological features and differential counts of Plasmodium knowlesi parasites in naturally acquired human infections. *Malaria J.* 8:73 (published online 21 April), 2009. (In Sarawak, Kapit hospital samples of knowlesi were difficult to distinguish from other Plasmodia species.)

1073. Daneshvar, C., et al. Clinical and laboratory features of human Plasmodium knowlesi infection. *Clinical Infectious Diseases* 49:852-860, 2009. (On Kapit hospital malaria patients in Sarawak; 70% of them had knowlesi; the infection responded to chloroquine and primaquine.)

deliveries had complications.)

1075. S. A. R. Syed Alwi et al. The menopausal experience among indigenous women in Sarawak, Malaysia. *Climacteric* 1369-7137, published online 16 July, 2009. (Interviews showed that menopause occurred at age 51, on average.)


