**An Overview of Health Concerns in Micronesia**

We don’t know much about the pre-contact conditions in the islands.

* Life may have been “nasty, short and brutish,” as Hobbes suggests
* But we know that Western contact impacted greatly on health conditions...for good and for bad.

19th Century depopulation, owing to the diseases brought by Westerners sailing to the islands as intensive contact began. Examples are plain:

* smallpox epidemic on Pohnpei in 1854, killing off more than one-third of population; two years later smallpox had an equally disastrous effect on Guam. (tell story)
* influenza epidemic on Kosrae a year later, killing 300 people. Just the beginning, for Kosrae’s population dropped from 3,000 in 1840 to a mere 300 by the end of the century. This parallels the population decline in the Marianas two centuries earlier in which the population of that group fell from 40,000 to 4,000–a decline erroneously attributed even today to the Spanish-Chamorro Wars.
* In 1859, the year in which the first foreign traders were landed in the Marshalls, an outbreak of influenza taking so many lives that the Marshallese didn’t know what to do with all the bodies. A measles epidemic struck two years later, and a few years after that typhoid fever broke out.

An added problem was what Europeans then called “the pox”–venereal disease or STDs.

* called the “chiefs’ disease” in the Marshalls, since chiefs got their pick of the young girls, including those infected by Western sailors.
* missionaries described people disfigured by these diseases–woman without a nose, and a Marshallese man who had lost his male organ.
* birthrate dropped precipitously during 1800s–no more than one or two births a year in some places.
* Westerners residing in Palau and Yap predicted the wipe out of the population. “The weak, deteroriating natives will not be able to resist the advances of civilization. Before long the last Micronesian will have disappeared.” (Tetens)
* population drop overall in Micronesia (ie, ROP, FSM and RMI) of 30-40% during the century. *Slide #2*

Colonial powers brought medicine at the beginning of the 20th century.

* Germans stationed doctors on Pohnpei and Chuuk; opened the first hospitals; tried to cope with a TB epidemic in Yap; and arrested the population decline, even amid severe epidemics like the dysentery outbreak in the Marshalls that claimed 500 lives in 1907-1908.
* Japanese administrators improved on the hospitals, had permanent medical staff in each island group, and established leper colonies to deal with the growing number of cases. Still, no growth in the local population during the 30 years of Japanese rule.

Post-war Micronesia

* When US Navy conducted health survey of the islands after the war, its findings were not surprising: intestinal parasites, yaws, TB, skin diseases, contaminated water and unsanitary conditions. Yet, overall, their survey “presented a summary picture of excellent health.” This can be said of the surviving population, but the death rate the year before their arrival was 45 per thousand–higher than the US even during the war years.
* Noted was almost complete absence of malnutrition or obesity. There was no diabetes found.
* Blood pressure study on Pohnpei in late 1940s showed almost no hypertension.

By the early 1960s

* TB and leprosy wards in each hospital
* most of the diseases were the “traditional sort”: GI conditions, parasites, respiratory diseases
* occasional epidemics: polio in Marshalls in 1962 that left 190 crippled; measles epidemic in Chuuk that killed a XHS student due to encephalitis.

Rapid socio-economic change from the 1960s, under Kennedy Administration.

* Increase in US subsidy, number of employees, and total wages *Slides #3, 4, 5* Imported foods became more common as more had access to cash income. Lifestyle began changing as people did less physical work (eg, widespread use of kerosene stove after typhoon in Chuuk in 1971).
* new problems among children: Vitamin A deficiency, especially in Chuuk and Pohnpei; and infant malnutrition (owing to bottle-feeding with the formula cut or substitution of soda or punch for milk, and replacement of local foods with white rice or junk food). Low birth rates begin to be recorded everywhere.
* perhaps the roots of the new disease burden–“lifestyle diseases” that would become an ever larger part of the health threat in subsequent years.
* alcohol ban rescinded in 1960, and drinking becomes popular recreation.
* population growth, meanwhile, of over 3% yearly throughout the islands. *Slide #6*

The Rise of the “Big Three”: Heart Problems, Diabetes, Stroke

* Obesity is a common problem in the islands: 80% in FSM aged 35-55, more than double the rate of 38% in US. Comparable rates in RMI. *Slide #7*
* Hypertension rates in FSM for same age group are 35%, compared to 20% in US. *Slide #8*
* Diabetes has also become a major problem. FSM rates for 45-55 cohort in FSM is over 20%, triple the US rate of 7%. *Slide #9* Rates are even higher in certain places: Kosrae rate for 45-55 is over 30%, and in RMI over half the population over age 50 are afflicted. *Slide #10*
* Death due to renal failure has been on the rise, as have limb amputations. Diabetes (“sugar disease”) is one of the major health problems in the islands.

Traditional practices and attitudes affected the change in lifestyle and diet. Slide #11 Life in the village provided many occasions for exercise, but these were reduced with modern conveniences. Impact of cars and outboard engines on the way people get around–less walking than ever.

* Even those who felt the need to get more exercise were inhibited by the local disdain for exercise for its own sake. Eg, women in Chuuk walking the airport after dark to avoid being seen, male joggers early in morning for same reason. “Mad dogs and Englishmen” attitude toward wanton exercise in the tropics.
* Food, traditionally, fell into two categories: *mwongo* and *seeni* (starch and protein). Vegetables not eaten as separate dish, but food wrapped in taro leaves and cooked with greens. With transfer to Western foods, lunch was a can of corned beef or Spam and a large bowl of rice with soy sauce. This was, in local thinking, a balanced diet, although no other food groups represented.
* Two-way shift in eating habits: toward a high-sodium, high-fat diet, and toward less nutritious carbohydrates (white rice).
* Traditional attitude: eat it up while it’s there; tomorrow there may be nothing. This attitude springs from a “feast or famine” type of lifestyle. Perhaps so does the genetic predisposition to diabetes, if you believe the “thrifty gene” theory.
* Bodily size increased; much more obesity today

+ It’s often said that Pacific Islanders regarded corpulence as a gauge of prosperity–early naval captains said that you could tell chiefs by their size (true until today in Tonga). Theory that chiefs fed well and did little physical labor.

+ Fleshiness was also supposedly a sign of beauty (eg, Chuukese taste in women with “legs like tuna fish”). But a look through photos of a century ago shows few islanders who were obese. Ones who were–eg, Ibedul in 1880s–were remarked on for their size.

* Hence, the paradoxical situation regarding islander body size: abnormally low weights at birth, but very high weights (obesity) in adulthood. So island people target for disease at both ends of the life cycle: malnutrition in its different forms early, and the NCDs later in life.

Movement by the “3rd Generation” to reverse these recent health trends

* 1st Generation: post-war Micronesians living on the land with the disease burden of a traditional society.
* 2nd Generation: from the mid-1960s through 1980s. Emergence of heart disease, stroke and diabetes as major health threats.
* 3rd Generation: emerging in the present. Generation that inherited the health problems and early deaths of the past three decades. Most have quit smoking, do not spend all evening in bars but drink a little red wine, and get regular exercise (eg, my meeting former students, including President of Palau, on basketball court. Slimness is back in style: women dieting and men weighing themselves regularly. New health consciousness.

Present disease burden

* rates of high blood sugar and hypertension are very high, leading to diabetes, heart disease and strokes.
* although infant malnutrition is dropping, this still presents a problem. Infant mortality rates are still much higher than in the US Slide #12
* child immunization rates have been rising over the years. Now Palauan children under two are almost all immunized, but FSM and RMI get only 2/3 of their babies immunized.
* rates of leprosy and TB are still high, and there are occasional outbreaks of other infectious diseases. Cholera has broken out in FSM and RMI during the last 20 years, and dengue fever is an occasional problem.
* so, island health system is burdened by having to deal with both types of diseases: infectious diseases of the past, and the diseases of modernization (NCDs).

As modernization gives, so it takes away.

* If the diseases associated with modernization have become rampant, modern medicine has made inroads on infant mortality. Also checked some, if not all of the infectious diseases.
* Forces of modernization in recent years have also checked the runaway population growth of earlier decades. Gross fertility rates have dropped over the years. Slide #13Emigration to find jobs has had an even great effect. Island population growth rates are now very low–a fraction of a percent a year, much lower than the current US growth rate.

A little more modernization would not hurt at this point to stem the tide of the NCDs and remove the danger of infectious disease. A few of the priorities in public health might be:

* establishment of an effective dispensary system that brings public health education closer to the people. This education would deal with such things as: good nutrition for children and adults; prevention and care of diabetes and hypertension; basic sanitation improvement measures. The dispensaries could also immunize the children who have escaped the net thus far.
* improved organization so that resources were allocated more effectively, and ordering of meds and supplies done in advance.

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