THE PRICE-POTTENGER FOUNDATION INC.

Mailing Address
137 NO. CANYON BLVD.

MONROVIA. CALIFORNIA 91916

# THE EWA PLANTATION HEALTH PROJECT

# with

EXCERPTS FROM AN ANNUAL REPORT TO

THE EWA PLANTATION COMPANY

by

GEORGE F. RENTON, MANAGER



The Martha R. Jones Foundation for Health Education, Inc.

## BEGINNING OF PROJECT

After two months of hard work, readying the house and clearing the grounds for clinic purposes, an infant-feeding project was started in April, 1930, by Martha R. Jones, Ph.D. in an isolated village of Filipino laborers on Ewa Plantation, Oahu, Hawaii. The name of the village was Pipe Line, and its residents were newcomers to Hawaii. The first and only enrollee in the feeding clinic on its opening day was a pathetic, 9-month-old boy whose life expectancy was practically nil. Stark fear that this baby was going to die, as his four older brothers and sisters had at about his age, drove the mother to take him to "ghost house" and feed him the food that was prepared for him there, gratis.

Dr. Jones' objective in conducting the clinic was to make application of her researches in nutritional diseases at the University of California Medical Center, San Francisco, California, 1920-1928, which were prompted by her own physical-dental disabilities as a child. Her quest for a solution of her problems led to a Ph.D. degree in physiological chemistry at Yale University in 1920, but no answer to the WHYS of her chronic illnesses and rampant tooth decay, while five brothers and sisters enjoyed robust health and freedom from dental troubles.

Researches on the dogs in California and findings from the recently completed diet-teeth study of the pre-school children of Honolulu and surrounding areas were in complete agreement. The CAUSE and CURE of the distressing physical-dental state of Hawaii's children appeared to be SIMPLE.

THE CAUSE:—SUBSTITUTION OF IMPORTED ACID-ASH CARBOHYDRATES (grains and manufactured grain products as bread, cakes, cookies, confections, etc.) IN THE DIET for NATIVE, ALKALINE-ASH VARIETIES (taro, sweet potato and natural sugar cane juice, principally). Although the diet was adequate for growth, reproduction and lactation, an imbalance in body chemistry toward the acid side was created. Result—mal-function of tissue cells, organs and — DISEASE.

Ancient Hawaiians were famed for their great physical strength and endurance, broad dental arches and beautifully aligned, decay-free teeth, on a diet that consisted of alkaline-ash tropical vegetation and fish. Cattle (beef), grains and cow's milk were unknown. During their change-over from their high carbohydrate alkaline-ash diet to the high carbohydrate acid-ash type then in use, a population estimated between 300,000 to 400,000 people—second to none in physical-dental excellence the world has ever known — dwindled to 20,000.

THE CURE:—RESTORATION OF NATIVE ALKALINE-ASH CARBOHYDRATES (taro, sweet potato and natural sugar cane juice, principally) IN THE DIET. Simple as it seemed, the economics of Hawaii and the grain-growing areas of the United States mainland were involved, and the clinical demonstration proposed was vigorously protested.

Permission to undertake a health project in Pipe Line Village was granted to Dr. Jones by Ewa Plantation Manager, Mr. George Renton, provided, he said, "that it cost the Plantation Company exactly nothing". A "ghost house" on the outskirts of the village, which had long been vacant and was badly in need of repair, was offered for clinic use. All conditions were accepted. With generous donations of furnishings and services from friends, the house and grounds were readied for use.

Helping a sick baby develop into a healthy husky is a rewarding experience, and especially so when the ONLY medication used is FOOD. Soon, all of the village babies under two years of age (33) were enrolled in the clinic on a part-pay basis. NONE DIED. Rampart tooth decay was arrested. The common cold, previously universal and considered "normal," became practically non-existent. Epidemics of flu and measles by-passed clinic-fed babies.

The effect upon the morale of the village was as spectacular as the improvement in the health of the children. Pipe Line's resident population consisted of two traditionally enemy tribes of Filipinos who spoke different dialects. Through their association at the Health Center they became friends. With no fights and no funerals, there were more work days and "take-home" pay. Morale rose to an all-time HIGH.

# EXCERPT FROM THE FORTY-SECOND ANNUAL REPORT of the EWA PLANTATION COMPANY for the

Year ending December 31, 1931

As a result a second Health Center was opened June 1st, 1931, using one of our nursery buildings.

The reduction in the Infant Mortality rate—"Infants" meaning children one year of age and under—has been as follows:

	1931	1930	1929
Infant Mortality rate.	68.9	75.1	160.7

This table includes all infants on the plantation whether enrolled in our Health Center or not. Separating the two, we find:

Infants not enrolled in the Health Center:

	Total	Filipinos	Japanese	Others
Infants born 1931	21	10	6	5
Number died	7	5	2	0
Infant Mortality rate	333.3	500	333.3	0

Infants enrolled in the Health Center:

	Total	Filipinos	Japanese	Others
Infants born 1931	. 95	45	46	4
Number died	. 1	1	0	0
Infant Mortality rate	10.5	22.2	0	0

The total Health Center enrollment, that is, babies from birth to two years of age, is as follows:

	Total	Filipinos	Japanese	Others
Enrolled	155	87	62	6
Died	2	1	1	0
Mortality rate	12.9	11.5	16.1	0

From the foregoing tables we see that the Infant Mortality rate has been reduced considerably during the past three years from 160.7 deaths per thousand in 1929 to 68.9 in 1931. We also see that the Infant Mortality rate among the infants not enrolled was tremendous, whereas there was only one death among the 95 enrolled infants this past year and only two in the 155 babies enrolled. I am of the opinion that the difference between the Infant Mortality rate of the infants not enrolled and those that

were may possibly be too great to serve as a guide for future work. \*

This remarkable improvement is the direct result of study and hard work done by those connected with the Health Centers and of the education and supervision of the mothers as to the proper care and diet for themselves and their children. \*

Gradually the nurseries we have had in the past are becoming Health Centers, where the work of caring for the children is being broadened so as to embrace those activities which have to do with health and instructions as to diet and proper modes of living for

our employees.

Splendid work has already been accomplished along these lines. About one-half of the children attending our Free Kindergarten—that is, about eighty of them—have agreed to purchase a school lunch as recommended and furnished by one of our Health Centers near by. At the end of the first month

21% gained one to two pounds

43% gained eight ounces to one pound

24% gained four to eight ounces 7% gained zero to four ounces

5% lost.

In other words, 88% of the total number of children showed an appreciable gain based on the fact that the average increase in weight of a normal child of this same age is approximately five

ounces per month.

In the Ewa Public School, due to the interest and effort of the Principal and her staff, 345 students—a little over one-third of the enrollment—are daily taking some of the foods recommended by the Health Center. Lectures on nutrition have been given the school staff and illustrated talks showing effect of food on health and growth have been given before the Ewa Parent-Teacher Association. Recently a Mothers' Club for all nationalities was organized where proper instruction could be received, and I was recently informed that a young girls' auxiliary was requested. Truly this Health Center here at Ewa is a wonderful institution and is more than paying for itself in happier homes, healthier children and therefore more contented workers. \*

Respectfully submitted,

GEO. F. RENTON, Manager, Ewa Plantation Company.

Ewa, Hawaii, February 4th, 1932.

\* Emphasis added

#### **EXPANSION AND OUTGROWTH**

As the Health Center activities were expanded and more villages, more families, more expectant mothers, new babies, small children, teenagers and adults became involved, teaching became paramount, especially in the pre-natal clinic, kindergarten and elementary grade school, where 345 of some 1000 children were found to have blood vessel and related disease, as well as rampant tooth decay. Few understood English and talking was useless, but differences in food values in respect to their acid-alkali content pictured in color in wall charts were striking: Acid-ash food (meats, fish, eggs, grains and their manufactured products—breakfast cereals, bread, cakes, crackers, confections, etc.)—RED in color: vegetables and fruits—GREEN.

Striking, also, were the differences in physical well-being, size and friendliness of rats of the same litter fed the community (acidash) and Health Center (alkaline-ash) diet, although both contained comparable amounts of carbohydrates and other essential nutrients. Building of "health houses" on paper representative of the child's daily food intake proved to be a teaching device par excellence for children as young as third-graders. Perfection consisted of two GREEN building blocks (serving of food) for each RED block, arranged according to the child's artistic sense and skill. Building health houses became competitive. Meanwhile, the health of the children improved.

As the project grew, visitors from all over the world, as well as Hawaii, became so numerous that a clinic for the public was held each week. Among them were such notables as President Franklin Roosevelt's personal physican and dentist, during his one-day visit to Honolulu, and Mr. and Mrs. George Bernard Shaw.

So enthusiastic was the dentist's report to Washington head-quarters that the Dental Department of the United States Navy requested that one of its dental officers be accepted as an understudy at the Health Center for four months. This was arranged and, during that time, a diet-teeth study of enlisted men at the Pearl Harbor Submarine Base was made by him, with the collaboration of the commanding officer of the Base and Dr. Jones. Findings were in complete agreement with those made on dogs in California; dietteeth studies in Hawaii, and all such studies reported in the literature analyzed to date from the standpoint of acid-base balance. INVARIABLY, AS THE POTENTIAL ALKALINITY OF THE DIET DECREASED, THE INCIDENCE OF DENTAL CARIES INCREASED, and vice versa, regardless of the excellence of the diet in all known respects.

Although the enlisted men's diet conformed to the "BASIC SEVEN" (now BASIC FOUR) diet rules, as outlined by nutrition authorities, 98.2% of a group of 109 enlisted men (average age 28 years) had active tooth decay. Similarly, at the Mooseheart Orphanage, during a three-year diet-teeth study (Chicago Dental Society), all three diet periods or one year each, conformed to the "Basic Seven" diet rules. As the potential alkalinity DE-CREASED from 64 to 30 to 28 standard units, the incidence of active dental caries INCREASED from 34 to 78 to 83 percent of the children. The simple substitution of alkaline ash potato for acid-ash bread would have INCREASED the potential alkalinity of all three diets to, or near the optimal level and, theoretically at least, reduced the incidence of tooth decay to ZERO.

### TODAY'S DILEMMA

We are the richest nation in the world in material wealth and spend billions of dollars annually on medical research, maternity and well baby clinics, kindergartens and physical fitness programs at all age levels, athletic fields etc.. Yet in respect to infant mortality, which is recognized as the nation's most sensitive indicator of health, we rank 15th among nations of the world, President Johnson said in a special health message to Congress, May 1968.

Every 2 minutes a defective baby is born. Millions of them are vegetating in institutions supported by the American tax payer. The number of border-line cases who stay at home and become aimless, empty, diseased school drop-outs, ready to join the rioters, looters and wreckers as opportunity presents itself, is just now becoming apparent.

Today's economy is largely concerned with the alleviation of suffering from man-made (degenerative) diseases, requiring more and bigger hospitals, more centers for the emergency treatment of victims, training of more doctors, dentists, psychiatrists, nurses, technicians, production of more and stronger drugs, manufacture of equipment, etc.. The cost of medical care is skyrocketing, while degenerative diseases increase, apace. PREVENTION IS SIMPLE, but frowned upon, unfortunately. BIG BUSINESS is not interested in the type of prevention and cure that is obtainable in one's back yard.

### **FUTURE PLANS**

The MARTHA R. JONES FOUNDATION FOR HEALTH EDUCATION, INC. plans to duplicate the Ewa Plantation Health Project at Asbury Theological Seminary, Wilmore, Kentucky, and with the aid of automated medical equipment and computers now available, to scientifically authenticate the findings for the advancement of science and betterment of all humanity. It is to be a long range project involving the WHOLE person, the WHOLE of his life, and the many factors—diet, age, activity, ultraviolet radiation, stress, etc.—which alter the interrelationships of various constituents in one's blood and tissues which spell the difference between buoyant health and half living, and all too often, between life and death.

ASBURY THEOLOGICAL SEMINARY was chosen as the PLACE for the demonstration because of the interest of her administrative officers in the project and their willingness to cooperate; the international, interracial, interdenominational charcter of her student body and their world out-reach; and of special advantage, the large percentage of student families resident on the campus for three years or more, and possible contact with them throughout life.

It is an ambitious program in preparation for which more than eight years and some \$35,000.00 have been spent. Clinic space, blueprint (cost \$25,000.00), personnel and other essentials are in readiness to begin.

MONEY IS NEEDED
A GIFT WOULD BE GREATLY APPRECIATED

The MARTHA R. JONES FOUNDATION FOR HEALTH EDUCATION, INC.

S. P. O. Box 10 Wilmore, Kentucky 40390 All contributions are Income Tax deductible