

JPRS 69759

9 September 1977

WORLD EPIDEMIOLOGY REVIEW

No. 86

WORLD

WIDE

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

20000405 023

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| | | | |
|---|-----------------------------|--|------------------------------|
| BIBLIOGRAPHIC DATA SHEET | 1. Report No. JPRS 69759 | 2. | 3. Recipient's Accession No. |
| 4. Title and Subtitle WORLD EPIDEMIOLOGY REVIEW, No. 86 | | 5. Report Date 9 September 1977 | |
| 7. Author(s) | | 6. | |
| 9. Performing Organization Name and Address Joint Publications Research Service 1000 North Glebe Road Arlington, Virginia 22201 | | 8. Performing Organization Rept. No. | |
| | | 10. Project/Task/Work Unit No. | |
| | | 11. Contract/Grant No. | |
| 12. Sponsoring Organization Name and Address As above | | 13. Type of Report & Period Covered | |
| | | 14. | |
| 15. Supplementary Notes | | | |
| 16. Abstracts The report contains worldwide press and radio coverage of incidence, outbreak, and other aspects of human, animal, and plant diseases, insect pests and control, sanitation conditions, immunization and public health programs. | | | |
| 17. Key Words and Document Analysis. 17a. Descriptors Worldwide Clinical Medicine Environmental Biology Hygiene and Sanitation Microbiology | | | |
| 17b. Identifiers/Open-Ended Terms | | | |
| 17c. COSATI Field/Group 2E, 6E, 6F, 6I, 6M | | | |
| 18. Availability Statement Unlimited Availability Sold by NTIS Springfield, Virginia 22151 | | 19. Security Class (This Report) UNCLASSIFIED | 21. No. of Pages 86 |
| | | 20. Security Class (This Page) UNCLASSIFIED | 22. Price PCAO5 |

I. HUMAN DISEASES

ANGOLA

ANTI-CHOLERA VACCINATION CAMPAIGN

Luanda JORNAL DE ANGOLA in Portuguese 22 Jul 77 pp 1, 2

[Text] As anticipated, the vaccination campaign against cholera will begin next Sunday, 24 July. This announcement was made by the National Committee to Combat Cholera, which coordinates and technically will undertake all of the ample task of protecting the health of the nation against that disease.

During the meeting with the press organs, the representatives of the mass organizations associated with the National Committee to Combat Cholera appealed to all the youth and the population in general to participate actively in the campaign by helping at the vaccination centers, as well as by reporting for vaccination and complying with the hygienic-sanitary recommendations of the medical authorities.

On that occasion, Antonio Pitra, the committee's coordinator, made known the following communique:

Continuation of Cholera Operation

"As our people already know, our country has serious health problems in some provinces. We have had cholera--which, as you are aware, is a most dangerous disease and has caused many victims among us--in the provinces of Luanda, Benguela, Zaire and North Kwanza. Many, indeed, have been the victims in our country as well as in the world. It is a disease which is easily transmitted from one person to another, who could die if not treated promptly.

"The Ministry of Health has been rather concerned about this situation, and this has brought about the establishment of a National Committee to

Combat Cholera which counts on the participation of representatives of the health sector, the presidency of the republic, the ministries and the mass organizations of the Popular Movement for the Liberation of Angola (MPLA) with a view to studying the cholera problem.

"The effort intended to eliminate such a disease from our midst is, therefore, understandable. It is necessary that our people, our Pioneers be protected from such an insidious disease.

"Thus, in connection with the most affected areas and on a national level, the Department of Epidemiology of the National Health Service, which studies the easily transmissible diseases and epidemics such as cholera, with the support of the mass organizations, the ministries, the CPPA, the FAPLA [expansions unknown] and the people in general, has decided to conduct an extensive campaign against cholera for the purpose of overcoming the disease.

Cooperation of All the People Requested

"For that purpose," continues the note of the National Committee to Combat Cholera, "we request the cooperation and support of all the people so that next Sunday, the 24th, at 0900 hours, they will present themselves at the vaccination centers installed at the Neighborhood Committees, schools, theaters and other locations.

"With this request for cooperation and support, an appeal is also made for good understanding and the spirit of voluntarism which we should all have in Benguela or in Luanda, in North Kwanza or in Soyo, in order to combat cholera by taking the sulfamide tablet."

And further on: "Before closing, I wish to say that the success of this campaign actually depends on the masses, on our people. And the success will only reflect the understanding of the problems which is provided on behalf of the defense of our revolution. To protect the health of our people is one of the priorities established by the plenum of the Central Committee of the MPLA, and by doing so we are actually carrying out the revolution."

ANTI-CHOLERA CAMPAIGN LARGELY SUCCESSFUL IN LUANDA

Luanda JORNAL DE ANGOLA in Portuguese 4 Aug 77 pp 1, 2

[Text] In responding faithfully to the most elementary national needs, the Ministry of Health recently undertook an important campaign against cholera. This campaign, which is within the framework of resolutions of the third plenary session of the MPLA Central Committee on the general idea of the "fight against endemic disease and persistent social plagues," is of great importance for our country, because it will make possible the gradual eradication of this plague.

As is generally known, the campaign covers only the provinces of Luanda, Benguela and Zaire, inasmuch as they are the zones affected.

The campaign has been carried on for the past 2 weeks, with special emphasis on weekends. There was mass participation by the population from the aforementioned areas, who promptly appeared at the vaccination stations. However, there are zones in which the campaign is still under way.

Several stations were set up at airports and highway control points for distribution of pills to citizens still unprotected and who have not presented any vaccination certificates against cholera for purposes of leaving or returning to the area.

Meanwhile, in order that we may speak about the way the campaign has been going, in spite of still having no figures on vaccination in the remaining provinces affected, we contacted Comrade Amilcar Martins, director of the department of epidemiology of the Ministry of Health. In a brief statement by this official, she emphasized:

"The protection level achieved by Operation Sulfamide from the 24th to the 31st, with the heaviest distribution of medications on those 2 days, was quite satisfactory. We must have vaccinated more than 90 percent of the population in the city of Luanda, with the exception of Cazenga and Golfe."

On the other hand, as she also revealed, the Ministry of Health is considering a special measure at this time which will make possible improvement in the level of protection of the popular masses who reside in these two zones. According to the director of the department of epidemiology, this measure becomes more important once cholera spreads to neighboring municipios, namely, Viana and Catete.

This official also emphasized the valuable contribution made by mass organizations which made the campaign successful because of their enthusiastic, militant participation.

Further on, she reported that the city of Benguela and the village of Dombe Grande had been unable to carry on the campaign on the 24th and 31st. In the face of this setback, the vaccination campaign got its start only on these last 2 days. In concluding her report, Comrade Amilcar Martins announced the enlargement in a short while of the stations in the municipios of Viana, (?Cacuaco) and Cacete.

BENIN

ANTI-ONCHOCERCOSIS CAMPAIGN ENTERS ACTIVE PHASE

Cotonou EHUZU in French 4 Jul 77 p 3

[Text] Natitingou--In connection with the fight against onchocercosis in the People's Republic of Benin, Issifou Bouraima, minister of public health, went to Natitingou last week accompanied by two of his assistants.

In a statement to the press, the minister of health indicated that he personally came to the site in order to spend a week prospecting and examining firsthand the principal streams to be treated afterwards.

"The Canadian company contracted to spread the insecticide, Abate," the minister added, "will arrive in Nititingou very soon, and the Beninese leaders will join the Canadian personnel in studying the precise work to be done in the geographical area involved. The work will be directed by the Atacora prefect in collaboration with the National Committee for the Fight Against Onchocercosis. Only then shall we truly begin the fight against this scourge that is victimizing our industrious peasants."

The Beninese People's Revolution Party and the Revolutionary Military Government attach great importance to problems of health and economic problems in general. As a matter of fact, onchocercosis is striking the inhabitants of our country's fertile valleys with blindness, rendering them unable to work. Work being a sacred duty and honor for the Beninese, as stressed in the fundamental law of our society, our leaders want to do everything possible to restore the Beninese to good health, so that they might perform the productive and liberating labor advocated by our revolution.

When asked if the insecticide, Abate, is harmful to man or to aquatic animals, the minister of health allayed all possible fears. "This insecticide holds no danger for either man or aquatic animals. It has been specifically developed for the destruction of simulium larvae. Therefore, the people living along the banks of those streams have nothing to fear in drinking the water. Moreover," the minister emphasized, "health department personnel taking part in the campaign will drink the water in front of the people to convince them."

The streams most greatly infested are:

Province of Atacora:

a) in the Porga region: the Pendjari and its tributaries, the Tikou Sarga Yapiti and the Magou;

- b) in the Natitingou region: the Yerpao, the Perma and the Sinaicire;
- c) in the Djougou region: the Bina and the Upper Oueme.

Province of Borgou:

- a) the Sota and its tributaries: Irane and Tassine Bouli;
- b) the Alibori and its tributaries: Pako, Darou Woka and Nibiori;
- c) the Mekrou and its tributaries: Gboerou and Keremou.

Comrade Bouraima further indicated that, as the campaign develops, the people concerned will be amply informed of all measures taken. It goes without saying that the people must remain alert and that any movement of planes in an area other than those specified in the program must be called to the attention of the appropriate authorities at once.

Before concluding, the minister of public health spoke specifically to the people whose areas are to be visited informing them that the treated water will remain whitened for about 5 minutes but that, in no case, will the water be dangerous. "However," he stated emphatically, "if, perchance, the people noticed any dead fish floating on top the water, they would know that this is the work of saboteurs using insecticides of the andryne type to fish. Such possible saboteurs must be detected and rapidly prevented from doing any more harm."

In addition, the minister of public health urged the people to collaborate with the helicopter crews providing them with any useful information relative to the streams to be treated.

He likewise asked the local revolutionary authorities and local leaders to protect the equipment to be used by the inspection teams, so that they might effectively accomplish their purpose.

INCIDENCE OF TUBERCULOSIS DURING 1973-1977

Cotonou EHUZU in French 15 Jul 77 p 4

[Text] In creating the Department of Preventive Medicine, the minister for public health desires to bring a solution to that necessity expressed in the Discours-Programme "to give priority to preventive medicine over curative medicine."

The department now being organized will include a division for health education which has been working with Rural Radio since the beginning of the year. Educational programs on good health are being broadcast in the national languages for the rural population. Their goal is to lead them

individually and collectively to take action to improve their life surroundings, to forge attitudes taking the offensive against disease and thus to become the builders of their own health.

To establish these ideas, the same themes will appear every Friday from now on in this newspaper.

Tuberculosis is an infectious disease, extremely contagious and very serious and terminal if not treated in time, but curable, completely curable, if quickly treated.

Tuberculosis is an important and disquieting problem for the population and a socially important disease which much concerns the health departments of our country. It concerns citizens as a whole because of its consequences for the family and by the heavy burden placed on the state. Tuberculosis continues to be a great problem for everyone, because it rages throughout the city as well as the country. Thus the population as a whole will be able to benefit from fighting it, and this fight, to be effective, must reach a sufficiently large percentage of the population.

Until 1973, 800 to 900 new cases were uncovered each year for about 10 years; but the figures for the last 3 years show a clear increase: 1,104, 1,403, 1,556 cases unearthed. From January to April 1977, the Cotonou Center has counted 168 [? blot on newsprint makes this figure unclear] of the 426 already reported over the whole country. All these figures are far from expressing the actual prevalence of the disease because until now medical action has awaited the appearance of the sick in dispensaries and hospitals; which means that only a minority of the diseased will spontaneously appear for treatment after, of course, infecting numerous persons about them. This also means that treatment is followed irregularly and is frequently interrupted by those who find it too long or think they live too far from the center.

The seriousness of the problem lies not only in kola nut chewers and spitters [creacheurs de BK] infecting those around them and the progression to death of those not treated, but also and above all, in the enfeeblement of the sick person with the consequent diminution of his capacity to work. He then ceases to be a producer but becomes a burden to his family and to society.

Thus, tuberculosis constitutes a worrisome problem calling for the vigilance of everyone to facilitate the unearthing of cases within the population, treatment of the ill, and protection of the not-yet-affected by BCG vaccination. For this reason public health authorities have installed in many clinics [dispensaires] the material necessary to examine the expectorations of those with chronic coughs, to treat the sick, and to vaccinate the infants. At present, it is necessary to mobilize effective cooperation from the population at large through publicizing the government program available for diagnosing, treating and immunizing against this terrible illness.

THESES BY MEDICAL STUDENTS OF NATIONAL UNIVERSITY

Cotonou EHUZU in French 21 Jul 77 p 3

[Excerpt] The main objects of Dr Martin Agbessi Avimadje's thesis are to stress:

1) the particular clinical aspects of onchocercosis in the Mono valley, more specifically in the region of the falls of the Mono, at Adjarala. This is a form of onchocercosis which causes less blindness than the savannah form; and 2) the epidemiological aspects of onchocercosis in the Mono valley. In the village of Djikpame and in the neighboring built-up areas, the incidence varies from 13.79 to 100 percent of the rural population. These percentages, identical to those of the villages of northern Benin, which are involved in the large Project Onchocercosis, necessitate control measures to be instituted in order to eradicate this filariasis in a valley devoted to tourism, farming, and industry.

Cotonou EHUZU in French 22 Jul 77 pp 5, 7

[Excerpt] After a survey of the history of leprosy, preventive measures and legal applications currently in force, Dr Augustin Adjibi broaches the problems of the endemicity of leprosy in the People's Republic of Benin (epidemiological studies, a census of the leprosaria in Benin, and a description of a classical type leprosarium, the leprosarium of the Holy Angels at Ouidah).

In 1972 the People's Republic of Benin counted a total of 48,318 lepers; in 1976 this figure fell to 36,667 cases which are known and regularly followed up.

Three essential actions are required in order to accelerate the demonstrated regression of leprosy cases: a policy of rendering the lepers free of the bacteria; protection of healthy subjects; early detection of new cases.

Cotonou EHUZU in French 22 Jul 77 p 5

[Excerpts] The principal objective of Dr Victor Hounkonnou's work aims to draw the attention of highly placed persons in the People's Republic of Benin to the extent of schistosomiasis infestations in the Oueme valley and the disastrous socioeconomic consequences which could result therefrom.

From the epidemiological and statistical studies undertaken by Dr Victor Hounkonnou in the rice-growing pilot zone of Soniah, it becomes evident that some villages of this valley have incidences of schistosomiasis fluctuating between 80 and 95 percent of the population.

Only a methodically programmed control project, combined with active participation of the rural masses, could bring these incidences down to levels compatible with the maintenance of a state of health.

BRAZIL

LACK OF INFRASTRUCTURE TO MEET VACCINATION GOALS

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 3 Jul 77 p 38

[Article by Ana Marcia Seraphim]

[Text] Inasmuch as the state health secretariats possess only the infrastructure to take care of the urban areas and the municipios which are not too distant from the capitals, the Ministry of Health will hardly achieve the goal of vaccinating 80 percent of the children born since 1 July within a year. Since Friday, the parents or guardians of children under 1 year of age are bound to see to it that their children are vaccinated between the ages of 2 months and 1 year, as a requirement to receive the family allowance in 1978.

In spite of having transformed vaccination into a routine practice at the government hospitals and health centers, doing away with the system of mass campaigns, the Ministry of Health will depend on various agencies to obtain a good result in the 1977-78 biennial: the health secretariats, which are the executors of the National Immunization Program (PNI); the Drug Center (CEME), which is in charge of purchasing and distributing the necessary supplies of vaccines to the states; and its own employees to supervise the implementation of the PNI.

Epidemiologic bulletins of the WHO and the Special Public Health Service (SESP) Foundation of the Ministry of Health report that almost 50,000 persons, mainly children under 5 years of age, were victims of diseases which are easily prevented by vaccination--poliomyelitis, measles, whooping cough, diphtheria, tetanus and typhoid fever--in the first 8 months of 1976. Nevertheless, the sanitary authorities insist that the amount of vaccines sent to the states was sufficient to take care of the needs. In view of that fact, everything leads to the belief that the system of administration and preservation of the vaccines does not work out at the health secretariats.

Proof of that is the incident often recalled by Minister Almeida Machado: Upon arriving at one of the Brazilian capitals, he discovered that either the children under 1 year of age had been vaccinated against measles more than twice, or the vaccine had been administered to persons of up to 14 years of age. The minister of health reached that conclusion because the number of ministrations surpassed the figure of the infantile population

by more than three times. In Patos, Paraiba, he did not hide his displeasure upon discovering the isolation ward of a local hospital completely filled out by children suffering from measles. And when he questioned the health secretary about the disposition of the vaccines sent to him, he inadvertently created a dissension among the authorities, who argued for hours without being able to determine who were really to blame for the situation.

In Brazil, the isolation wards of children's and general-care hospitals are mainly occupied by children with measles as a result of the failure of official agencies to supply them the vaccine and of parents to seek protection for their children. The Ministry of Health tried to solve those problems by establishing the PNI and the obligatory proof of vaccination against measles, poliomyelitis, tuberculosis, smallpox, whooping cough, tetanus and diphtheria for children under 1 year of age in order to receive the family allowance. Some 68,822,000 doses of various types of vaccines costing 34.7 [sic] million cruzeiros are being distributed this year.

Inefficiency

On a recent trip which the minister of health made to Sergipe, he verified by the statistical charts of the SESP Foundation centers that the vaccines were not being administered according to the official timetable, a situation which is possibly being repeated in other states. Sometimes they manage to administer the BCG vaccine before the child leaves the hospital, but this is a small figure because most of the deliveries in the interior of the country are done by quacks. Vaccination against poliomyelitis is not always satisfactory, and against measles--the main cause of infant mortality and confinement--it does not attain even half of the established goal.

On the other hand, the state health secretariats allege that there are operational difficulties in carrying out the immunization programs in the areas of the interior of the country. WHO technicians point to the public health authorities as being responsible for the lack of success of those programs, which is solely caused by trivial and non-medical causes: the actual difficulties of taking care of the most inaccessible rural areas, the lack of fuel for transportation, and the preservation of vaccines by means of refrigeration.

Vaccination was the theme chosen this year by the WHO for the World Health Day. The death of a child suffering from infectious diseases can be prevented through immunization for only 26 cruzeiros, says the organization in an explanatory pamphlet. In the meantime, only 10 percent of the infant population of up to 1 year of age of the developing world (about 80 million) are vaccinated against poliomyelitis, measles, diphtheria, tetanus, tuberculosis and smallpox. This occasions more than 5 million deaths among children under 5 years of age.

In relation to infant mortality resulting from lack of immunization, the problems occasioned by poverty, hunger, diseases due to lack of basic sanitation, unemployment and the poorly planned growth of the population must be taken into account also. Measles, for instance, finds favorable conditions to spread among undernourished children and even kills one in every group of 10 victims.

Researches conducted by the Ministry of Health in 1972, whose data are the only ones available to date, disclose that the social costs of measles are at least 15 times higher than the cost of vaccinating those same children, who do not number more than 7 million. That year, according to estimates based on insignificant prices, the country spent in the treatment of measles the following sums: between 60 million and 200 million cruzeiros for medical treatment at hospitals and homes, 14 million cruzeiros for a day of absence from work of one of the parents of a sick child, and an additional 32 million cruzeiros for medical treatment at hospitals. Up to 5 years ago, 97.5 percent of the cases of the disease were not reported "although measles was included in the group of compulsory notification diseases."

180,000 INFECTED WITH SCHISTOSOMIASIS IN MARANHAO

Rio de Janeiro O GLOBO in Portuguese 8 Jul 77 p 9

[Text] Sao Luis--The Superintendency of Public Health Campaigns (SUCAM) and the Special Public Health Foundation estimate that 180,000 persons are sick with schistosomiasis in Maranhao, and they cite the Maranhao Lowland as the area showing the highest index of that endemic disease.

Among the municipios where foci of schistosomiasis were confirmed are Sao Bento and Viana in the Maranhao Lowland, Cururupu on the northern littoral, and Pastos Bons in the area of Agreste. The situation in Sao Luis is considered tense by Dr Joselio Carvalho Branco, former state health secretary and current adviser of the SUCAM in Maranhao.

"Stool tests of school children done by the Superintendency for the Development of the Amazon Region (SUDAM) confirmed that 5 percent of those who live in the sections of Coroado and Bares are afflicted with schistosomiasis."

Carvalho Branco says that the Jaguarema and the Bicas rivers are the main sources of infection of schistosomiasis in Sao Luis.

TEST FOR CHAGAS DISEASE

Rio de Janeiro JORNAL DO BRASIL in Portuguese 14 Jul 77 p 16

[Text] Recife--After recording several cases of Chagas disease in the hinterland, the Regional Health Delegation decided that the Central Laboratory of Pernambuco collect blood samples throughout the state to determine the area of greatest incidence. According to the delegation, there are no means of mass immunization against the disease, but an attempt will be made to eliminate the transmitting insect, the "barbeiro" [Conorhinus, syn Triatoma, megistor].

POLIOMYELITIS INCREASES IN PERNAMBUCO

Rio de Janeiro JORNAL DO BRASIL in Portuguese 14 Jul 77 p 16

[Text] Recife--Another six cases of poliomyelitis were registered in the capital in the past 72 hours, increasing the number of statewide cases to 220 this year. According to the Health Secretariat, 80 percent of the cases are children under 2 years of age who had not been vaccinated.

MEASLES IMMUNIZATION CAMPAIGN POSTPONED UNTIL END OF SEPTEMBER

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 16 Jul 77 p 12

[Text] The Health Secretariat of Sao Paulo decided to postpone until the end of September the campaign to intensify vaccination against measles which was scheduled for early August. The measure, according to Secretary Walter Leser himself, is caused by the large influx of people to the health centers as a result of the new federal legislation which requires the immunization of children under 1 year of age against five diseases. Consequently, in addition to measles, the units of the secretariat are administering vaccines against poliomyelitis, smallpox and tuberculosis, and the triple vaccine (whooping cough, tetanus and diphtheria).

"That excessive influx, which got to the point of creating disturbances in some units, is caused by a misinterpretation of the law which created the National Immunization Program," says Secretary Walter Leser. As he explained it, the majority of the population did not understand that although their children born since 1 July are already bound to receive the vaccines, the penalty for those who fail to comply with the requirement--which involves the loss of the family allowance--will not actually go into effect until 1 July of next year. "Only in 1978 will the official agencies issue health passbooks with the stampings of all the doses of vaccines," again reminded Secretary Walter Leser.

On the other hand, the nearly 600 health centers of Sao Paulo are still adapting to the norms imposed by the new law. They are receiving about 900,000 national immunization passbooks on which all vaccine doses administered will be recorded at the proper time. And as a result of that, a whole technique of filling out, updating and keeping track of the beneficiaries of the health centers is being studied.

In the opinion of Secretary Walter Leser, the centers were not able to carry out a parallel vaccination intensification campaign against measles in addition to all that extra work. "For that reason, we will begin immunization against measles at the end of September, when the task of general immunization will become routine." He also noted that all children under 1 year of age who go to the health centers are receiving the vaccine against measles. "There is no lack of vaccine. It might have occurred that the supply of the vaccine ran out in some unit, but the Butanta Institute has a suitable schedule to resupply them," explained Leser.

In the meantime, as far as the health secretary is concerned, Sao Paulo should present certain problems to reach the goal set up by the National Immunization Program of vaccinating 80 percent of the population under 1 year of age. "There are sections of the city where we do not have health centers, and besides that the population of the state undergoes intense migration all the time," remarks Leser. According to figures of the Sanitary Demographic Section of the secretariat, the grand total of routine vaccination against measles increased from 175,981 in 1975 to 216,847 last year. Meanwhile, only 18 percent of the indigent population was vaccinated in the first 3 months of 1977, a rate which should be 20 percent quarterly according to the projections of the Ministry of Health.

HEALTH AUTHORITIES ELIMINATE MALARIA FOCUS IN SAO PAULO

Rio de Janeiro O GLOBO in Portuguese 26 Jul 77 p 9

[Text] After employment of insecticide to kill off the insect vectors and the treatment of 76 sick persons, the Sao Paulo Secretary of Health yesterday announced the eradication of the malaria focus which broke out just a little over 3 months ago on the north edge of the state.

The first case of malaria in the region, after a period of nearly 20 years without a single case, was discovered on 23 March, in the Ponta Grossa section of the municipio of Ubatuba. According to experts from the secretary, the disease was introduced by a tourist during Carnival Week.

PUBLIC HEALTH DENIES OUTBREAK OF SYLVATIC YELLOW FEVER IN GOIAS

Rio de Janeiro O GLOBO in Portuguese 17 Jul 77 p 12

[Text] Brasilia--Agostinho Cruz Marques, director of the Public Health Campaigns Division of the Ministry of Health, told O GLOBO yesterday that there is no danger of an outbreak of sylvatic yellow fever in the municipio of Arralás, northeast of Goias, and neither has it been confirmed that the two monkeys found dead in the trees were actually afflicted with the disease. The vaccination of 3,000 persons in the municipio was merely "a precautionary measure, a normal procedure in the country."

The cause of death will be known only after the anatomicopathological examination of the liver samples of the two animals, which have been sent already to the Evandro Chagas Institute in Para because it was the one closest to the area able to perform that type of test.

Although both urban and sylvatic yellow fever are transmitted by mosquitoes, Agostinho Marques reminded that the difference between the two lies in the fact that in the former, the insect bites man directly, while in the latter, the virus circulates among wild animals--more precisely, among some species of monkeys.

"The occurrence of sylvatic yellow fever is not common in man because the insects generally bite the animals high on the trees, there occurring only some sporadic cases mostly in Amazonia, on account of the forest. But the vaccine is the best protection."

According to him, the vaccine against sylvatic yellow fever affords protection for 15 years, and it is routinely provided in the rural endemic areas by teams of the Superintendency of Public Health Campaigns (SUCAM), although their activity becomes publicly known only when there are cases which draw attention. He added that a large portion of the population of Goias was vaccinated in 1973, and hence it is immunized against the disease.

To "internalize" its activities in Amazonia, an area which requires special attention because of man's penetration into the forest, SUCAM is purchasing small generators and freezers (portable refrigerators) which make it possible to preserve the vaccines by keeping them at a low temperature.

TWO STATES SEEK TO ELIMINATE FOCI OF YELLOW FEVER

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Jun 77 p 19

[Text] The Superintendency of Public Health Campaigns (SUCAM) will begin in the next few days a thorough survey of the whole urban area of Belem

to uncover any possible foci of the *Aedes aegypti* mosquito, the transmitter of yellow fever. In Salvador, the force of 300 men visiting homes in several sections in search of new foci should be doubled in 45 days to eliminate promptly the transmission chain of the disease.

Although yellow fever had been eradicated throughout Para State since 1973, the regional directorate of the SUCAM fears the appearance of some case of the disease because the mosquitoes discovered aboard the Greek vessel Antares, which arrived 10 days ago from Africa, could have flown to the city.

The vessel docked on the 21st, but because of the neglect of the port authorities, the SUCAM did not make an inspection until the following day, detecting the presence of six foci of the *Aedes aegypti* mosquito. The whole area around the port was disinfested, but the danger of the resurgence of yellow fever has not been averted.

In view of the SUCAM decision to carry out an intensive search for possible foci of the yellow fever transmitting mosquito, all the hospitals and clinics of the city of Belem were directed to report any cases immediately.

The problem is similar in Salvador. The sanitary guards of the SUCAM discovered a focus of *Aedes aegypti* mosquitoes in the city port 5 months ago. After that, the superintendency conducted a search throughout the city, uncovering small foci in such sections as Baixa do Bonfim, Liberdade, Vale do Canela and others. Since then, the sanitary guards have been visiting homes, and the SUCAM expects to cover all the houses of Greater Salvador by doubling its personnel.

At the same time that he tried to calm the people, Osvaldo de Jesus, interim chief of the superintendency in Bahia, asked yesterday for the cooperation of every person in order to prevent old cans, broken bottles, tires and other discarded objects being dumped in back yards, empty lots or open fields. Those objects normally become deposits of dead water, a natural habitat for the *Aedes aegypti* mosquito.

POSSIBLE SMALLPOX KILLS FIVE XAVANTE INDIANS IN MATO GROSSO

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 28 Jul 77 p 22

[Text] Five Xavante children between the ages of 5 and 10 years, all from the villages of Sao Marcos and Namucura in Mato Grosso, died in the last few days from a disease which could be smallpox, or "catapora" as it is called by the Indians and people of the interior. Eight adult Indians, including the chief Mario Juruna, and another 15 children have been stricken by the same disease, which causes vesicles over all the body, in addition to a high fever.

The news, kept in absolute secrecy by the National Indian Foundation [FUNAI] delegation in Cuiaba, was given to the press in Cuiaba by Xavante Jose Luis Tsrete, brother-in-law of Mario Juruna, who was sent to the village of Namucura "to serve as nurse," because the nun who aids the nearly 1,200 Xavantes of the two villages is in Cuiaba taking a course. Tsrete was in Cuiaba to pick up medicines.

The first child died on the 12th of this month, and only after repeated pleas from the Xavante chiefs of Sao Marcos and Namucura, did the FUNAI delegates in Cuiaba, always in secrecy, send a plane to those villages with medicine to take care of the emergency. Jose Luis Tsrete further stated that there had been news that there were also Indians stricken by smallpox, or "catapora," in the villages of Culuene and Couto Magalhaes, all Xavante.

The FUNAI delegate in Cuiaba, Col Rubens de Pinho, has been absent from Cuiaba, because his mother died the beginning of the week, and no information whatsoever concerning the smallpox outbreak in the Xavante villages was given out yesterday by his subordinates.

Chief Mario Juruna, who was unable to travel to Cuiaba because he was stricken with the disease, asked his brother-in-law to talk to the press in order to decry the smallpox outbreak, "with an eye to FUNAI taking better care of our people."

MEASLES OUTBREAKS

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 29 Jul 77 p 14

[Text] Juiz de Fora--The Regional Health Center of Juiz de Fora is contending with an outbreak of measles in the city which up to now has produced 354 officially confirmed cases. And according to Jose Carrano, the agency supervisor, that figure must be less than the actual one "because many families prefer not to resort to the center and treat their patients themselves."

The doctor denied the existence of an outbreak of meningitis in the interior of Minas Gerais. According to him the cases registered were few and not indicative of an epidemic situation: "Any disease can be considered epidemic only when it affects several sections of a city, as was the case with the hepatitis which occurred last month in the city of Rio Pomba, 50 kilometers distant from Juiz de Fora, where tens of persons were sick."

With regard to the measles epidemic which is taking place in Juiz de Fora, Jose Carrano said that part of the blame lies with the mothers, who are concerned about immunizing their children only with the triple, the BCG and other vaccines, forgetting that measles, although benign, can cause blindness, deafness and even oligophrenia.

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Jul 77 p 17

[Text] Classes in all schools in the municipio of Dourados, in southern Mato Grosso were suspended yesterday for a period of 15 days. The reason: a serious outbreak of German measles which has already stricken more than 200 people since the beginning of the month. This week alone, the municipal Secretary of Health registered 125 new cases.

The decision to suspend classes came from the state government after the Secretary of Health for Dourados, Leon Tolstoi Rodrigues, informed them of the seriousness of the outbreak. If the 15-day period is not long enough for the health authorities to vaccinate expectant mothers with shots of gamma globulin, it will be extended until the German measles outbreak is contained in the region.

Although the disease, which is striking all age groups, has been benign in most cases, it represents a danger to pregnant women, because if afflicted, their children could be born with irreversible injuries such as blindness.

Today an expert from the State Secretary of Health should arrive in Dourados who will coordinate, together with local health authorities, a vaccination plan for pregnant women. Just yesterday the head of the health unit in Dourados contacted the Prefecture in order to plan a vaccination program.

Schools were closed because the German measles outbreak is mainly hitting students and professors. When suggested that this means be used, the doctor in charge of the health unit explained that because of the concentration of people in a relatively small space, the classrooms made the spread of the disease possible.

In spite of the outbreak, the city continues in its normal work pattern, with no substantial drop in movement noted, even in commerce. Only the schools remain empty since today. In order that vaccinations will be given to all expectant mothers, an information campaign will be mounted concerning the risks of the disease to the unborn. Thus, health authorities intend to motivate the population most exposed to the disease.

DOCTORS SAY MENINGITIS OUTBREAK AT OSWALDO CRUZ IS UNDER CONTROL

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 29 Jun 77 p 14

[Text] The outbreak of lymphococytic meningitis which took place in Oswaldo Cruz, in Upper Sao Paulo, and caused the hospitalization of 40 persons is under control, assert the city doctors. The eight children still confined in the Charity Hospital were discharged yesterday morning, and only one of them had to be readmitted because of an intense headache.

However, it is expected that that patient will also be released within the next few hours.

The doctors were optimistic yesterday because no new cases of the disease had occurred since Friday, which means, according to the general belief, that the problem is out of the way. To Dr Jose Bussad, of the Charity Hospital, the release of almost all the hospitalized children considerably eased the climate of concern which prevailed in Oswaldo Cruz. With that, cases of trivial headache and fever have not brought new children to the pediatricians or the Health Center.

The doctors are awaiting the results of the tests which the Adolfo Lutz Institute is making in order to isolate the virus of the disease, which is the only way to determine accurately how its actual index of danger originated.

From the observation of the cases, the doctors guarantee that it is not a contagious disease, and assert that lymphococytic meningitis is benign and should not cause concern.

At the Charity Hospital, the doctors instruct visiting nurses to follow very closely all cases which may still come up. They fear that an eventual increase of meningococccic meningitis might go unnoticed because the people have been reassured and are aware that the present outbreak--of lymphococytic meningitis--is benign. The doctors view the sporadic occurrence of meningococccic meningitis as normal, but they explain that if the cases are not treated immediately, they could produce an epidemic.

15 PUBLIC HEALTH LABORATORIES ESTABLISHED IN ALAGOAS CITIES

Rio de Janeiro O GLOBO in Portuguese 29 Jul 77 p 6

[Text] Maceio--Secretary of Health Helio Lopes announced yesterday the establishment of 15 public health laboratories in pole cities in Alagoas, with an eye toward speeding up the fight against endemic diseases such as schistosomfasis and worms. He said that that program will be finished by the end of next year and that resources were already allocated jointly with the Ministry of Health.

The laboratory exams will be free, but the secretary plans to sign an agreement with the National Social Security Institute [INPS] and other prevention groups to assure the profitability of these centers. A central laboratory will function in Maceio, and the others will be established in cities of greatest population and which will be poles for other smaller municipalities.

BURMA

BURMESE PAPER CARRIES REPORT ON PLAGUE CASES

Rangoon LOKTHA PYEITHU NEZIN in Burmese 19 Aug 77 p 8 BK

[Text] Rangoon, 18 Aug--The Central Contagious Diseases Suppression Team of the Health Department, which is in charge of systematically checking and combating diseases in various states and divisions, reports that out of over 400 plague cases reported throughout the country between January and the second week of August over 20 victims died at hospitals, as they came to hospitals too late.

There were 171 cases in Sagaing Division--the highest--with one death. Mandalay Division was the second highest, with 57 cases, and five deaths. In Shan State, there were 46 cases--the third highest--with eight deaths. The fourth highest was Kachin State, with 37 cases, but there were no deaths.

Out of the 21 cases in Rangoon Division, two died, and in Pegu Division four out of a total of 29 victims have died. In Magwe Division, there were 11 cases and one death. No cases were reported from Tenasserim Division. In Arakan State, 11 cases were reported, but there were no deaths. There were 16 cases in Kayah State, with one death. In Karen State, 32 cases were reported, but there were no deaths. Chin and Mon states had no plague cases.

EAST GERMANY

CHANGES NOTED IN TYPES OF CHILDHOOD DISEASES

Bonn IWE-TAGESDIENST in German No 136, 20 Jul 77 p 3

[Text] According to Prof Hans Wolfgang Ocklitz, director of the Institute for Communicable Childhood Diseases, East Berlin Municipal Clinic, in recent years there have been considerable changes in the incidence of communicable childhood diseases in the GDR. Whereas, as a result of an extensive immunization program, diphtheria and poliomyelitis can be regarded as having been conquered, and there are only isolated cases of whooping cough and measles, diarrheal illnesses which could not be identified as dysentery, typhus, or paratyphoid fever have increased considerably. Moreover, Ocklitz described diseases of the urinary system as "constituting a problem"; these illnesses, along with colds and diarrheal illnesses, take the lead in overall childhood mortality statistics. In about 20 percent of children with an acute illness, the disease becomes chronic, and this brings about the danger of kidney failure. Ocklitz

reported "great success" with anti-epidemic measures to counter the virus hepatitis.

INDIA

CALCUTTA'S HEALTH

Calcutta THE STATESMAN in English 23 Jun 77 p 3

[Excerpt] Nobody died of cholera in Calcutta during the week ending June 18, though 13 people contracted the disease. Although 17 people were affected during the week ending June 11, no one died. The incidence of the disease during the corresponding weeks of 1976 was 12 and 18, respectively, but there were no deaths. According to spokesmen of Calcutta Corporation, 32,768 people were inoculated during the week ending Saturday.

PESTICIDES, CAUSE OF MYSTERY DISEASE

Madras THE HINDU in English 6 Jul 77 p 16

[Text] New Delhi, 5 Jul--The mystery disease that selectively struck Harijans in Karnataka four years ago is now believed to have been caused by pesticides.

This conclusion has been reached by the National Institute of Nutrition (NIN) which conducted a detailed study on the incidence of the disease that was unknown in India eight years ago.

The disease which involved knee and hip joints was confined to a few villages in Shimoga, and Chikmagalur districts. It affected predominantly family members of the Harijan community.

The NIN study team noted that the disease (now named handigodu syndrome) started to appear only after spraying large amounts of pesticides on paddy field was introduced in that area.

The scientists observed wholesale mortality of fishes and crabs after spraying operations, and they also noticed that crabs and fish were consumed liberally a few days after spraying.

Till about 10 years ago the Harijans got one rice meal from landlords as part of wages. But of late the Harijans had been consuming a lot of crabs because the landlords were reported to have discontinued the practice of serving rice meal.

According to the NIN, crabs have great capacity to accumulate large amounts of toxins such as DDT and cadmium "and it is likely that population groups who consume such crabs are exposed to the ingestion of pesticide residues."

The NIN found that the incidence of this disease has decreased in the last two years during which the pesticide use had also declined suggesting a link between the two.

"Since ten or more varieties of pesticides had been used the exact chemical nature of each one of them must be understood," the NIN said.

MORE LEPROSY CASES IN ASANSOL AREA

Calcutta THE STATESMAN in English 18 Jul 77 p 3

[Text] Durgapur, 17 Jul--Leprosy is on the increase in the coalmine and industrial areas in Asansol. According to a survey conducted by the Asansol Mines Board of Health, 24 of the 700 students in a school at Baraboni are affected by the disease. The previous survey put the percentage of leprosy cases in the school at 2.

'INCURABLE' FEVER CLAIMS 2,000 LIVES IN BIHAR

Delhi PATRIOT in English 30 Jul 77 p 1 BK

[Text] "Kala-Azar" [tropical fever] has taken a high toll of 2,000 lives already in the villages of Vaisali District of Bihar, according to Janata MP Ram Bilas Paswan.

Mr Paswan, who set the parliamentary record of winning the election by more than 4.5 lakh [100,000] votes, startled the Lok Sabha on Friday by announcing that he would resign his seat if the official figure of "only eight deaths because of the incurable disease" that had been raging in the district for the last 2 months was proved correct after an impartial inquiry by MPs.

The official version of the death toll was "a deplorable statement to cover up this human tragedy," he added. The local doctors were baffled over the causes of the fever and had no explanation and no remedy for it, Mr Paswan added. He appealed to the government to seek immediate WHO assistance to control the disease "before it affected the entire country."

INDONESIA

'CHOLERA-LIKE' EPIDEMIC HITS JAKARTA SUBURB

Hong Kong AFP in English 1352 GMT 4 Aug 77 BK

[Text] Jakarta, 4 Aug (AFP)--A cholera-like epidemic has killed 36 people, mostly children, in the southern Jakarta suburb of Pasar Minggu over the past 2 days, the Eveninger Pos Sore reported today quoting local officials.

Fifty more people have been rushed to hospital. Mass inoculation of the population of the area was ordered this morning.

Contaminated spring water is blamed for the outbreak of the disease.

Hong Kong AFP in English 0915 GMT 6 Aug 77 BK

[Text] Jakarta, 6 Aug (AFP)--The cholera epidemic which hit Jakarta's southern suburb earlier this week is now well under control, Dr Bachrawi, head of the Health Ministry Department for Contagious Diseases, told AFP today.

The death toll still stopped at 37--all children under 15--and not 75 as reported in a Jakarta eveninger yesterday, said Dr Bachrawi. Nearly 100 more people were being treated in hospital.

Dr Bachrawi said he believed many deaths in the south of Jakarta have been erroneously blamed on cholera.

Rangoon THE WORKING PEOPLE'S DAILY in English 8 Aug 77 p 1

[Text] Djakarta, 6 Aug--About 20,000 persons have been vaccinated against cholera after 38 persons died after a sudden outbreak of suspected cholera, Djakarta City officials said Saturday.

Most of the dead were between the ages of three and 17, but Indonesian health officials said there was no reason to panic.

The deaths started Monday but diminished by the weekend and many of the hospitalized patients were declared fit for release.

"There is no reason for panic," said Dr Herman Susilo, head of the Djakarta Department of Public Health. He attributed most of the deaths to failure to report the disease.

Susilo ordered a mass cholera inoculation for the 141,000 people living in the affected area. He said no incidence of the disease had been reported in other areas of the Indonesian capital.

Authorities said the cause of the sudden outbreak of the disease--marked by severe diarrhea and vomiting--was still under investigation. But it was believed that the garbage dumps in the southern areas of the city were the main source of the epidemic.

Officials called on the population in and around the stricken areas along the southern rim of the city to drain stagnant pools, clean up garbage dumps and observe normal hygienic standards to check the epidemic.

As of Saturday, public health authorities said they believed they had the situation under control as few new cases were reported.

The disease has been known in Djakarta for some years. This week's epidemic, however, was the most severe in terms of numbers of persons and areas afflicted.

Hong Kong AFP in English 1042 GMT 9 Aug 77 BK

[Text] Jakarta, 9 Aug (AFP)--Eighteen more people have died from the cholera epidemic now raging in Jakarta, bringing the total dead to 63.

Meanwhile, the American Navy Medical Research Unit (NAMRU) has joined Indonesian authorities to fight the disease. The pro-government newspaper SUARA KARYA quoted an Indonesian doctor as saying that the cholera disease which struck the south Jakarta district of Pasar Minggu since last week was of the El Tor variety. Lt Commander Andre B. Cobet, officer-in-charge of the NAMRU Laboratory in Jakarta said his unit has started an investigation into the sudden outbreak of the gastrointestinal disease.

"We have just started yesterday (Monday) and our investigation is probably going to continue through the week," Commander Cobet said.

He said his unit voluntarily offered to help the Indonesian health authorities to identify the fatal disease.

Officially, Indonesian authorities are reluctant to use the term "cholera" for the epidemic but preferred calling it "Muntah Berak" (vomit and diarrhea) which is symptomatic of the disease.

IRAN

MEDICAL CARE IN IRAN MODEL FOR THE MIDEAST

Teheran TEHRAN JOURNAL in English 9 Aug 77 p 4

[Article by R. Mohan]

[Text] Tehran--The medical care network in Iran, though far from perfect, is shaping itself into a model for the Middle East. For the layman queuing up at the hospital and cursing at the delay, it might look like a distant goal and exaggerated claim. But there is no denying that Iran has adopted a system which is bound to come out a winner.

What distinguishes Iran from every other Middle East country is the adoption of the compulsory insurance, or the social security system. It combines, in theory if not yet in practice, the best that the Western methods can offer to a fast developing country. There is no country in the world now which has insured half of its population and hopes to insure the entire population in six years from now.

The experience in developing countries has shown that quite often, the multitude of problems are tackled in a rush, without an overall view being taken. It leads to ad hoc solutions and makes a mess of the abandoned halfway when they fail to yield results. They cost a great deal in men, material and money. What is more, the time wasted upon them can never be recovered.

Iran has however, escaped this fate at least in the field of medical care. For a system has been adopted before the program of implementation was launched. A country transforming itself with a speed unprecedented in history is bound to crash into hurdles. But then, it is the drive that counts. Given the drive, one will always pick up and push ahead.

The ratio of hospital beds per 1,000 population is now 1.5. In a short period, it is to go up to 2.2, the highest in this region and in the developing world. In other words, the number of beds is 45,000 and some 20,000 are to be added soon.

The policy laid down by His Imperial Majesty the Shahanshah to ensure medical care for the populace from the womb to the tomb has been implemented by the Health Ministry in a manner which has few parallels in this country.

Those who grumble against the inefficiency of the medical network must remember that the system, as seen today, is hardly three years old. It was almost a beginning from the scratch. In no time at all, in terms of national programs, the country has a system that covers most of the

villages, an efficient service in cities and standards that compare with the best.

There is no claim at all that the system is perfect. It can never be. There will always be room to improve. But achievements have to be judged against the factors of time and resources.

In a bold and imaginative move, Iran started inviting doctors and medical personnel from abroad to man its rapid expansion. The short term within which these expatriates were trained and became part of the rural scene is unique in history. The expatriates have proved popular with the patients, the real test of their caliber, and have contributed to the realization of a goal.

The Minister of Health and Welfare Dr. Shojaeddin Shaikholeslamzadeh has often pointed out that implementation is possible if there is a well mapped framework. The social security system has been able to provide such a blueprint. The resources multiplied at a rate that it was a challenge to put it to use quickly and efficiently.

The stumbling block in implementing any such measure in a developing country is manpower. Apart from importing those who were necessary, the Ministry has evolved a network from ideas borrowed from the World Health Organization and from countries where experiments were made in this direction.

This was aimed at providing the maximum of health service with the minimum of personnel. At Heshtgerd, not very far from Tehran and just beyond Karaj, is the first of several such pilot schemes launched by the ministry.

Here, a population of about 75,000 is covered by less than a dozen doctors and a slightly more number of nurses. The greater burden of medical care is carried by behvars, or basic medical workers, trained at a special school set up for them.

Behvars are young men and women often recruited from the village they are expected to serve later. They have basic education and are trained into learning elements of medical and health care. The training is tuned to the needs of the villages of their area. They are later posted to what are called health houses, small clinics, set up in each village.

These health houses, where the behvars live, are visited by doctors at fixed timings on scheduled days in a week. The behvars sift the patients and save a great deal of the doctor's time. Quite often, it has been noticed that doctors waste a lot of their time even in general hospitals in classifying and sifting cases.

The behvars also educate the rural populace in basic lessons of hygiene and there are instances of good work done by these young men and women.

From the health house, a case is referred to the clinic where a doctor attends on them. These clinics are linked by wireless with emergency centers which can send ambulances or helicopters to pick up a case requiring immediate attention. The ministry is reported to be buying some 50 helicopters soon to strengthen its services.

From the emergency center, where only preliminary attention can be paid, the patient has access to the city hospital. Thus, a patient in a distant hamlet can have easy access to the best hospital in the country because of this scheme.

The ministry plans to extend this scheme to the entire country, bringing all hospitals and clinics, belonging to any government or private organization, under this network. This will reduce the need for personnel to the minimum and will also prevent duplication.

Another new scheme which has proved valuable is the "fee for service" scheme. Though it has aroused a great deal of criticism, it must be noted that it has come to stay and that there is no quarrel about its aim itself. Fee for service means a doctor is entitled to a cut in the fees paid by the patient. His income depends upon the number of patients he attends to.

This has resulted in doctors being prompt and punctual and even in cases where clinics stay open for long hours. The patient himself does not pay anything extra since expenses are met by his insurance. In several countries, it is well known that government doctors are indifferent to their patients because their income is fixed.

The fee for service has attracted a large number of Iranian doctors who were working abroad and who were reluctant to return because of fixed salaries and low incomes. Now it is only their efficiency and work that stands in their way.

The system that is being evolved in Iran might become a good model for the Middle East itself. For countries in the region, while being anxious to extend medical care to the entire population within a short time, have somehow neglected to evolve a system that in itself can provide the much needed impetus.

Already, it has been acknowledged by international bodies like the World Health Organization and the Rehabilitation International that Iran has progressed so fast and so well that it can house training institutions in those fields. A regional center for rehabilitation will be soon established in Tehran.

A meeting of WHO experts on nutrition here a few months back paid rich tributes to the progress made in Iran. It is only a matter of time before medical care too becomes a model.

MALAYSIA

CHOLERA IN KUCHING

Hong Kong AFP in English 1222 GMT 4 Aug 77 BK

[Text] East Malaysia, 4 Aug--About 120,000 people have been vaccinated against cholera since its outbreak in the state last April. A spokesman of the State Medical Department said today the campaign was being stepped up to prevent the spread of the disease. So far 96 cases, including four deaths, had been confirmed in the state. There was however, no new case reported during the past 24 hours.

THAILAND

TUBERCULOSIS FIGURES

Bangkok BANGKOK WORLD in English 29 Jul 77 p 2 BK

[Text] Dr Natta Siyaphai, deputy director general of the Ministry of Health's Department of Communicable Diseases Control, told reporters yesterday that at present about 2 percent of the population were suffering from tuberculosis, and in several of these cases the disease had reached an epidemic stage. Some 70,000-80,000 TB patients visit hospital each year for treatment, he added.

HEMORRHAGIC FEVER

Bangkok BANGKOK WORLD in English 28 Jul 77 p 2 BK

[Text] Mae Hong Son--Haemorrhagic fever has hit a Karen village in Muang District, reports from here said today. Although there was no loss of human life authorities said about 90 head of cattle and pigs have died. The village struck was Muang Pem in Tambon Pang Makha, some 80 kilometres from the provincial capital. There are about 160 families living in the village. Provincial husbandry authorities have been sent out to the village with vaccines to curb the spread of the epidemic to nearby villages.

MALARIA STATISTICS

Bangkok BANGKOK POST in English 13 Aug 77 p 1 BK

[Text] The incidence of malaria in the country has increased by 25 percent this year due to the resettlement of people in forested regions, according to the Communicable Diseases Control Department yesterday.

It added that during the past 5 years, malaria has spread in several countries in Asia due to lack of assistance from international organizations, with resulting lack of budgets and equipment to contain the disease.

In Thailand, the report said villagers in remote areas who are involved in poaching, gems digging and mining are taking a risk of contracting malaria and when they were afflicted with the disease it took them several days before they could reach the nearest health centre for treatment.

TURKEY

MALARIA EPIDEMIC SAID NEARING URBAN CENTERS

Istanbul CUMHURIYET in Turkish 17 Jul 77 p 7

[Text] Adana (CUMHURIYET Southern Provinces Bureau)--Widespread malaria in the Cukurova region is now said to be spreading to the large urban centers.

A report prepared at the conclusion of a seminar held in Adana states that malaria has spread rapidly through a transient population and is seen extensively throughout the provinces of Urfa, Diyarbakir, Adiyaman, and Gaziantep, especially in Adana, Hatay, and Icel.

The report, prepared at the conclusion of the 4-day seminar chaired by Health Ministry Malaria Director General Dr Berdan Akalin, stressed the need for coordination among relevant agencies and for additional personnel, drugs, and equipment in the anti-malaria units.

The report sets the first rank, urgent requirement at 2,673 personnel, 1,216 various pieces of equipment, and a great deal of medication. It also calls for a halt to the sale of the non-prescription drug "Resachine," which merely camouflages the disease.

In order to fight the outbreak of malaria more effectively, the report calls for army assistance, stressing the need for blood tests, especially of recruits, prior to assignment involving relocation.

The introduction to the report contains the following views:

"There is now in Cukurova a very serious malaria epidemic that is growing rapidly. The epidemic is spreading to the large urban centers. Cukurova was the scene of a great deal of public transience when the malaria began to spread. Spraying areas have expanded as a result of agricultural developments, and mosquitoes have developed varying degrees of resistance to the insecticides. Personnel, equipment, supply, and monetary resources in the malaria organization are far below the levels needed for the rapidly multiplying cases of malaria and intensified work schedule. As some provinces have been infected and others are threatened by population movements, extraordinary cooperation of all agencies and organizations able to assist the malaria organization is needed as soon as possible, and all resources of the Health and Social Assistance Ministry, especially personnel, equipment, and financial, must be shifted to the malaria effort."

Ankara POLITIKA in Turkish 1 Aug 77 p 4

[Excerpts] Malatya (THA)--Several breaks in the sewage lines in the Carmiya and Kiziltepe quarters of Malatya municipality have turned this area of 60,000 inhabitants into a mosquito breeding ground, threatening public health with an outbreak of malaria. Local leaders are appealing to the health minister and to provincial officials to take the necessary steps to alleviate the situation.

JAUNDICE OUTBREAK IN BURSA

Istanbul AKSAM in Turkish 1 Aug 77 pp 1, 4

[Excerpts] Bursa (THA)--It is reported that there is an extensive outbreak of contagious jaundice in Bursa province, and that the hospitals have a shortage of beds for patients in the contagious diseases wards. The provincial health director, Nizamettin Arat, has asked citizens to refrain from going to the beaches because of sewage contamination. He pointed out that contamination of swimming places between Kumla and Kursunlu villages in Gemlik district and between Mudanya and Burgaz village in Mudanya district is the greatest factor in the spread of this disease.

DEATHS FROM INTESTINAL INFECTION

Istanbul POLITIKA in Turkish 21 Aug 77 p 2

[Excerpts] Mardin (ANKARA Agency)--A total of eight persons have died during the past week from an intestinal infection in the village of Ozgen,

Silopi district, Mardin province. One health team sent from Diyarbakir and two health teams from Mardin Health Directorate are working to control this outbreak. Patients from Ozgen and Verimli villages are being taken to hospitals in Mardin and Diyarbakir, and the bodies of those who have died from this infection have reportedly been buried in lime pits.

URUGUAY

HEALTH MINISTER ANNOUNCES REORGANIZATION OF MINISTRY

Montevideo EL PAIS in Spanish 26 Jun 77 p 9

[Text] Dr Antonio Canellas discussed the plans which are under study and are being put into effect for the purpose of reorganizing the Ministry of Public Health at all levels.

On the other hand, the minister referred to the search for definitive solutions to the problem of collectivized assistance. Canellas alluded to the dialog--which he characterized as constructive--which he has maintained with the various sectors of the mutual benefit societies. He pointed out that while the problem is not too complicated from a technical and administrative standpoint, the crux of the matter lies in the lack of economic resources of the population to meet the cost of the assistance.

According to the minister, some of the faults of public health and a certain amount of its deterioration are not due solely to the lack of economic resources. He averred that it is not only the lack of management, but often the lack of judgment of the doctor who, although a technician, is one more element in the administrative structure. Canellas said that when a doctor examines a patient, he should do so thoroughly in order not to overload services which impinge on the economic-administrative sphere.

"When I refer to reeducating the beneficiary as well as the borrower in the field of health, I am hoping that we will achieve a new form of rendering services," said the public health incumbent.

NATIONWIDE MEASLES CAMPAIGN PLANNED IN URUGUAY

Montevideo EL PAIS in Spanish 30 Jun 77 p 1

[Text] The possible outbreak of a measles epidemic in August or September forced the national sanitary authorities to plan a vaccination campaign to last for 10 days beginning on 20 July. Some 120,000 children are to be immunized. Vaccination will not be compulsory, but all children between

9 months and 4 years of age ought to be inoculated before the end of that month. The ministry headed by Prof Antonio Canellas is currently studying the organizational details which will permit an effective coverage of the infant population of that age group throughout the republic.

"A massive vaccination campaign against measles which will include all children from 9 months to 4 years of age will be carried out throughout the country from 20 to 30 July," EL PAIS was informed by the director of the Epidemiology Department of the Ministry of Public Health, Dr Leonel Perez Moreira, who pointed out that an epidemic outbreak which, according to recent studies, threatens to erupt into our midst in August and September will be averted in that manner.

120,000 Children Should Be Vaccinated

When asked about the number of children who will be immunized during that period, the high official of the Ministry of Public Health indicated that the figure is 120,000. "The campaign will not be compulsory," he asserted, "but it is obvious that all parents will have the responsibility of taking their children to the services or to the mobile units which we will set up for that purpose, because the health and future welfare of the latter depend on this precautionary and wise action."

Last Campaign in 1972

He recalled that the last anti-measles campaign took place in Uruguay in 1972, and it was most successful. "In general, the population is aware of the importance of vaccination," remarked Dr Perez Moreira. "An eloquent proof was the recent general inoculation against meningitis."

Sources at the School of Medicine explained to EL PAIS that the anti-measles vaccine began to be used in our midst a decade ago and that approximately every 3 years, there is an increase of this disease on a national scale as the number of children increases who have no immunity as a result of not having received the vaccine. The current incidence of this disease is smaller, though 7 or 8 years ago about 150 children died from that cause within a period of 1 year, the informant recalled.

The vaccine against measles is injectable, and it is prepared on the basis of live viruses, for which reason its cost is high. The source noted that the price per unit was about 3 pesos during the last campaign. Asked about the most common symptomatologic characteristics displayed by this infant pathology, he pointed out that the child has a pronounced irritation of the eyes at the onset, contracts a cold and in some instances coughs frequently. After 3 or 4 days in such a condition, fever and the typical eruptions on the face, body and extremities will start.

Montevideo EL PAIS in Spanish 15 Jul 77 p 7

[Text] The massive vaccination campaign against measles will begin in the first few days of August, Dr Antonio Canellas, the minister of public health, told the press yesterday. At the close of a meeting of the Council of Ministers and the National Security Council (COSENA), Canellas denied circulating reports that the campaign in question would be delayed.

There will be no delay. From the start, the minister of public health said that the campaign against measles would begin on a date to be determined between 20 July and 15 August. Therefore, it will begin within the established time limit as the date was set for the first few days of August. The vaccination will include all Uruguayan children between the ages of 9 months and 4 years, which comprises a sizable population of 120,000 individuals. The vaccination will not be compulsory, but once more it is necessary to note the high sanitary responsibility resting on Uruguayan parents: measles is a deadly disease although it presents a benign symptomatology in the majority of cases.

The anti-measles campaign has strictly preventive objectives. The number of patients of measles in the country augments every 3 or 4 years as a logical consequence of the increase of the infant population. The study of the charts show that measles will probably tend to rise in the months of August and September: hence the massive vaccination campaign.

According to Traditional Method

According to the sanitary authorities, the vaccination will be done by the traditional method of the hypodermic needle. The limited number of recipients dictates that the pressure pistol, which was the novelty of the vaccination against meningitis last year, will not be used this time. The campaign scheduled for the early days of August will be conducted by about 200 vaccination units, a figure which includes the specialized sections of the Ministry of Public Health and the centers which normally operate in the mutual benefit societies and other medical facilities.

The sanitary authorities guarantee that the anti-measles vaccine is completely benign, and that it produces only a slight fever in the majority of cases.

CAMPAIGN AGAINST CHAGAS DISEASE SLATED FOR PAYSANDU

Montevideo EL PAIS in Spanish 21 Jul 77 p 12

[Article by Carlos Betancourt Zabala]

[Text] An accord between the Public Health Ministry and the Sanduz community is expected soon for development of a broad program for controlling Chagas disease.

It is intended to include this program in the NORIONE [expansion unknown] plan. The project will be aided by the Panamerican Health Organization and the Parasitology Department of the Faculty of Medicine of the University of the Republic.

Stringent preventive measures must be observed, including immediate spraying with gamexane wherever the insect which carries the disease is suspected to exist.

The disinfecting campaign will take place throughout Paysandu with the understanding that the insect *Triatoma Infestens*, a household bug, lives in rural areas predominantly but also lives in suburban and to a lesser degree in urban areas. As will be indicated, the first action in the campaign will be prevention. The municipal government of Paysandu will provide personnel and materials needed for the spraying with gamexane, the chemical which is considered most effective against the problem. At the same time a statistical project will be developed which will be of the greatest value for better understanding the disease and the extent it has spread.

MEASLES CAMPAIGNS, HEPATITIS INCIDENCE REPORTED

Montevideo EL PAIS in Spanish 23 Jul 77 p 7

[Text] A vaccination campaign against German measles without precedent in Uruguay is planned for 1978 by the Ministry of Public Health. About 497,000 children between 9 months and 10 years old will be vaccinated against this childhood disease which in this manner will be relegated to a small problem in Uruguay.

This report was made to EL PAIS by Dr Leonel Perez Moreira, epidemiology director for the ministry, who noted that the program for preventing German measles will be effective only if the adult population is aware of its importance and acts accordingly. "The vaccination will not be obligatory and will be promoted widely this year in order to obtain the best sanitation situation in this regard, since no epidemic of German measles is expected before 1981."

Ethical Motivation for Vaccination

"As has happened so many times, we are confident that civic responsibility will prevail along with ethical motivation, and parents will bring their children to the vaccination centers," noted Dr Perez Moreira, who noted that at the proper time more details will be available on this serious campaign against German measles. He added, "We can only say that girls will be revaccinated at 10 years of age. In this way they will remain protected through childbearing years. And the doses of vaccine of this type which will be imported in the future will be double, and can be used

against measles and German measles. They will be intended for children from 9 months to 6 years."

Hepatitis Increasing

Asked about events indicating an increase in the number of hepatitis cases reported to Public Health, Dr Perez Moreira confirmed the report: "There has been an increase related directly to problems in the environment in which a person lives. The lack of pure drinking water and the lack of habits of cleanliness are some of the factors which bring on the increase."

Symptoms

Then he stated that now there is a therapeutic arsenal which allows for effective treatment of hepatitis. He insisted on the importance of prevention ("People must be careful about personal hygiene and live in a healthy environment," he said) and detailed the most common symptoms which indicate a case of hepatitis early for prompt medical attention. "The individual loses appetite, suffers general deterioration, the skin turns yellowish and the urine darkens markedly and becomes iridescent, and stains underwear yellowish green."

Measles Campaign in August

Regarding the imminent beginning of the massive measles vaccination campaign, reported 3 weeks ago by EL PAIS, Dr Perez Moreira stated that during the first half of August it will begin on the national level. "We are waiting for definitive arrival of 140,000 doses coming from Belgium and the United States. Once they are in Uruguay, we will begin the whole operation and begin inoculating an expected 120,000 children from 9 months to 4 years," he said.

VENEZUELA

SYMPOSIUM ON GASTRIC CANCER

Caracas EL NACIONAL in Spanish 16 Jun 77 p C-17

[Article by Jorge Villalba]

[Text] More than 1,500 persons die annually in Venezuela as a result of cancerous tumors in the stomach. This makes gastric cancer one of the several types which show the highest rates of mortality in the country.

Eminent oncologists of Venezuela and from abroad will meet next Saturday at the Padre Machado Oncologic Hospital of Caracas to discuss and exchange experiences about the incidence, diagnosis and treatment of gastric cancer.

Several reports presented by Brazil, Chile and Venezuela will be discussed at the symposium, which is sponsored by the Venezuelan Anti-Cancer Society, the Venezuelan Institute of Scientific Investigations and the Alfredo Van Grieken General Hospital of Coro.

Dr Isidoro Zaidman, one of the participating specialists representing our country, explained that the mortality rate attained by gastric cancer in Venezuela is 55 per 100,000 cases in persons whose age ranges from 45 to 64 years, while Chile is the leading country in Latin America in deaths because of stomach cancer.

With regard to the causes of the high incidence of gastric cancer, Dr Zaidman acknowledged that they still have not been accurately determined. It is suspected that the diet could have a certain influence on the occurrence of the disease because in the United States, for example, a remarkable rate of gastric cancer prevailed 50 years ago, which later on was replaced by cancer of the colon as socioeconomic conditions improved, and consequently, the diet.

Dr Isidoro Zaidman likewise disclosed that no thorough studies of the disease have yet been made in our country. He stressed that it was almost impossible to detect the presence of the disease until a few years ago, and it was treated only when the patient was doomed.

"Fortunately," he said, "today we have efficient means for the early diagnosis of stomach tumors by examination using radiological and endoscopic techniques."

The doctor explained that the first technique consists in the taking of radiographs after the ingestion of a contrasting medium--barium mixed with gas [sic]--which makes it possible to discover stomach lesions no matter how small.

The endoscopic technique consists in the introduction of an optical fiber device through the mouth of the patient to reach the stomach, and this provides the opportunity to explore its interior by means of photographs.

Both techniques permit the detection of cancerous lesions, which helps to save the patient because gastric cancer is curable in up to 90 percent of the cases when detected in its early stage.

"At present," disclosed Dr Zaidman, "extensive gastric cancer research programs are being implemented in Coro because it is one of the areas of Venezuela where the incidence of the disease is greatest. The program is being carried out jointly by the Van Grieken General Hospital of that city, the Venezuelan Institute of Scientific Investigations and the Anti-Cancer Society."

The specialist recommended that all persons over 40 years of age who experience an unexplainable loss of weight or frequent digestive upsets should resort to the cancer prevention units, because the disease presents a symptomatology which is very similar to that of indigestion, nausea and so forth.

"The lack of specificity of the symptoms of gastric cancer," noted the doctor, "is one of its most dangerous aspects. That is the reason why persons showing symptoms of frequent stomach upsets should not treat themselves, but should go immediately to the cancer-prevention offices which the Anti-Cancer Society maintains throughout the country."

SEPTIC TANK CONTAMINATES TOWN'S WATER SUPPLY

Caracas EL NACIONAL in Spanish 16 Jun 77 p D-12

[Text] Cata, Aragua State, 15 Jun--A septic tank belonging to the school of this town is located on top of the underground water intake which supplies some 700 inhabitants.

Cata is a small town located some 10 kilometers from Ocumare de la Costa. The place was settled by the descendants of the blacks brought in by the Spaniards at the time of the conquest, who occupied themselves in fishing and the cultivation of cacao. Now it looks somewhat like a peasant settlement. The town appears deserted during the day with the doors of the small houses kept shut.

The pump which draws the underground water and lifts it to a tank for distribution to the inhabitants is located at the entrance to the town. Next to the pump is the septic tank of the Combined National School of Cata. The school is attended by about 100 children who study from the first to the sixth grade.

The water supplied to the inhabitants is sometimes yellowish, according to some residents. The water system is managed by the Malariology and Environmental Sanitation Office, it was reported in town. However, nobody knows why the septic tank of the school was built above the water source, or why the water intake is under a septic tank. Nobody in town could offer an explanation, but they could indicate the location of the waste matter tank and of the pump which draws the drinking water. They directed the newsmen to Ocumare de la Costa, where the office of the water system of the Malariology and Environmental Sanitation Office is located, but there was no one with authority to make a statement when the newsmen arrived there at 1405 hours.

Juan Antonio Lira, who is in charge of the water pump in Cata, said that the septic tank of the school was built 3 years ago. At the school, teachers Jose Ramon Osorio and Orlando Espinoza limited themselves to pointing to the location where the waste matter is deposited.

INFLUENZA EPIDEMIC IN MARACAIBO

Caracas EL NACIONAL in Spanish 20 Jun 77 p A-1

[Text] Maracaibo, 19 Jun--A wave of influenza is currently hitting this city and hundreds of persons, both adults and children, are being affected. Influenza is characterized by muscular pains, high fever, vomiting and general indisposition. It is believed that it could have developed as a result of the low temperatures recorded here 2 weeks ago, such as had not occurred in years, which subsequently returned to the normal range of 32-35 degrees C.

GASTROENTERITIS, DYSENTERY REPORTED IN CIUDAD BOLIVAR

Caracas EL NACIONAL in Spanish 23 Jun 77 p C-10

[Text] Ciudad Bolivar, 22 Jun--Some 312 cases of children with gastroenteritis, 77 with dysentery and 1 death have been registered in the hospital of this city in a period of 15 days, said Dr Walfredo Mendez, commissioner of health. He added that the index is high, but it is twice that figure in Ciudad Guayana because of the unhealthy conditions of numerous marginal communities.

He pointed out that the cases of gastroenteritis occurred among children under 2 years of age, and those of dysentery among children over 2 years of age.

He stated that the gastroenteritis epidemic in this city is of recent origin and the result of the rainy season, but it has existed in Ciudad Guayana since January, and it has not been possible to control it. The index is higher than normal. He indicated, however, that it has diminished since the Pediatric Unit with 106 beds was put into service.

The 24 rehydration cubicles in Ciudad Bolivar are always occupied, and the Health Service has organized teams which visit the marginal areas to guide the mothers and try to deal promptly with cases which come up.

Caracas EL UNIVERSAL in Spanish 26 Jun 77 p C-4

[Excerpt] Dr Walfredo Mendez Gil reiterated that he was going to Caracas to submit to the minister of health a detailed report on the gastroenteritis epidemic currently taking place in this area.

He stated that he is also taking part in a meeting of all the health commissioners of the country to coordinate preventive campaigns against diseases occurring during the winter season.

HEPATITIS CONFIRMED IN MARACAIBO AREA

Caracas EL NACIONAL in Spanish 24 Jun 77 p C-4

[Text] Maracaibo, 23 Jun--Some 56 cases of hepatitis were clinically confirmed by the sanitary authorities in the months of April and May at La Concepcion, a former oilfield in the jurisdiction of Maracaibo District.

Dr Elias Anzola Perez, epidemiologist of the cooperative health services, said that the majority of the cases occurred among children 3 to 10 years of age, and that there had been no deaths.

He pointed out that the factors which contributed to the occurrence of the outbreak of hepatitis were of a sanitary nature, and that a number of recommendations which should be implemented by the National Institute of Sanitation Works (INOS) were immediately taken into consideration in order to try to control the situation.

"It is necessary," he pointed out, "that a new chlorinator for the water supplied to the people be installed, that the three water storage tanks be cleaned and maintained, that the sewer drainpipes be extended to uninhabited areas because they currently drain in places where the sewage is used to irrigate vegetables and fruit trees, that broken pipes be restored and that samples be taken for bacteriological testing from the tanks where the water supplied to the population is stored."

He said that the situation had arisen because of these environmental sanitation problems which exist at La Concepcion.

GASTROENTERITIS, INFLUENZA HIT CARACAS AREAS

Caracas ULTIMAS NOTICIAS in Spanish 24 Jun 77 p 39

[Article by Jose Manuel Perez]

[Text] The hospitals and dispensaries near the fringe zones of the Metropolitan Area remain in a state of emergency because of the severe epidemic of gastroenteritis and influenza which has broken out in the poor sections of Caracas.

Gastroenteritis, as well as influenza, has broken out in an alarming manner among the humble inhabitants of the sections of Petare, Cuaricua, Antimano and Catia, which are the ones showing the largest number of cases. The health centers of Antimano and Macarao appear inadequate in the light of the needs of the children suffering from the disease.

In a visit to several poor sections, it could be established that two out of four children show symptoms of influenza and gastroenteritis, a situation which is acquiring alarming proportions because of the subhuman conditions in which most of the families live.

The sewage and large piles of refuse which practically cover the fringe sections have become the culture media of diseases which are afflicting the inhabitants in a merciless fashion. The heavy rains have also helped to worsen the situation. In short, the drama of the sections does not seem to have an ending, and thousands of inhabitants shudder under the torment of the torrential rains which threaten to destroy the shacks.

Another area which is also facing the serious problem of gastroenteritis is the section of Tacagua. Thousands of children living in the place are liable to contract the infection in view of the fact that those who are sick [do not] receive prompt medical attention, and the rest are easily infected.

Caracas ULTIMAS NOTICIAS in Spanish 25 Jun 77 p 47

[Excerpts] The severe influenza virus and gastroenteritis epidemic which has broken out in the fringe sections is in full sway and threatens to continue spreading unless the sanitary authorities adopt stringent measures in that respect.

The inhabitants of the poor sections, particularly the children, are suffering under the scourge of the diseases, which are spreading because of the abominable hygienic conditions which prevail in those places.

As a result of several visits made to various sections of Caracas, it can be asserted that half of the infant population of the poor districts is suffering from the severe influenza affection and from diarrhea and vomiting. The places which are most affected are the areas of Antimano, Caricuao, Catia and the upper portion of Petare. The last-mentioned place has really been hit by the epidemic. Almost all the people, adults as well as children, are suffering from influenza and gastroenteritis in the section of La Alcabala, which is in an extreme state of neglect on the part of the official agencies because it lacks electricity, local roads, sewer system and everything else. Informants also explained that all the youngsters of the section are sick, and that a pediatric center located in Petare does not suffice for the number of children in need of medical attention. They said besides that it is a waste of time to go for an examination because the doctors generally do not show up at the health centers.

Caracas ULTIMAS NOTICIAS in Spanish 6 Jul 77 p 28

[Article by Jose Manuel Perez]

[Text] A new influenza virus has cropped up among the Caracas population and is causing veritable havoc: thousands of persons are afflicted and this has caused a marked absence from work.

According to the characteristics displayed by the virus, it can be said that it is a triple combination of the "mad colt," the "bonebreaker" and the "controller 8" types of influenza. The main symptoms of the disease are similar to the last-mentioned type, only more acute, which forces those suffering from it to remain in bed for several days.

Disconcerted by the ruthless attack of the severe influenza, the sanitary authorities limit themselves to advising the patients to drink the greatest possible amount of fluids and to have absolute rest.

The influenza begins with strong aches all over the body which become worse in the back and the extremities, accompanied by vomiting, dizziness, breathing difficulties and complete aversion to the ingestion of food.

The usual medicines to relieve the discomfort produced by the virus are not effective against the disease, and the patients must limit themselves to letting the influenza process take its course, which is all the more dangerous because of the high fever they suffer.

Thousands of persons are suffering from the severe influenza--which the people already have named the "pambele" because of its strong and consistently devastating effect--lashing out against everyone, especially the inhabitants of the fringe sections of the Metropolitan Area.

The sections to the south, east and west of Caracas are distressed by the influenza attack; all the children are sick and the medical assistance centers are not able to take care of the large number of patients.

Now the situation is being aggravated by the torrential rains which have been taking place. Sick persons do not dare to leave their homes for fear of getting caught in the heavy rain and making their condition worse.

The influenza virus is easily transmissible in view of the fact that it is spready by simply talking or sneezing. Schools and concerns where many people assemble have had to adopt special measures, including the isolation of sick persons who can still manage to perform their tasks. Offices with air conditioning have been forced to dispense with it at the request of the employees themselves, because the majority of them is suffering from influenza. The situation is serious because it is most apparent that an alarming absence from work and school is taking place.

Medical science is desperately trying to discover a vaccine to eradicate influenza, but the investigations have been unsuccessful to date because the virus has different characteristics each time it shows up, and the only advice is to have absolute rest and take plenty of fluids, especially orange juice, linseed water, rice cream and melon juice for the dehydration which is produced by the high fever.

VACCINATION PROGRAMS SUCCESSFUL, MORE PLANNED

Caracas EL UNIVERSAL in Spanish 30 Jun 77 p 2-24

[Text] The vaccine against measles administered last year in the jurisdiction of the General Health Commissioner's Office of the Federal District and the Sucre District of Miranda State achieved very effective results, as represented by a decrease of 30 percent of the cases and 25 percent of the deaths in relation to the disease.

The information was furnished by Dr Alfredo Arizaleta, epidemiologist of the mentioned agency of Health and Social Welfare (SAS), who added that this fact becomes apparent if the number of cases and deaths for May of this year are compared with those of the same period of 1976. As a matter of fact, there were 639 cases and 20 deaths caused by measles in May of last year. There were only 430 cases and 15 deaths in the same month in 1977. This represents a decrease of 30 percent in cases and 25 percent in deaths caused by measles.

For the purpose of consolidating the fight against the disease, Dr Arizaleta said, the Ministry of Health is planning to carry out a massive vaccination campaign against measles, and against whooping cough, diphtheria and tetanus. In order to attain that goal, a program will be implemented which will include the administration of the first dose of triple vaccine and the single dose against measles between the 1st and the 12th of August. The triple vaccine provides protection against whooping cough, diphtheria and tetanus. Susceptible children of 2 months to 35 months of age will be vaccinated, and it is expected that this will benefit some 250,000 children who make up the vulnerable population in the jurisdiction of the General Health Commissioner's Office of the Federal District and the Sucre District of Miranda State. The anti-measles vaccine will be received by 190,000 children of 9 months to 35 months of age.

Dr Arizaleta pointed out that the first dose of the triple vaccine which is to be simultaneously administered with the anti-measles dose presents no risk or complications. Separate injectors will be used in the administration of the vaccines. The only situations which will arise will be the same as when they are administered individually on different days. It could happen that the children receiving the triple vaccine could present a slight fever or pain in the spot of the inoculation.

He said that there are fewer instances of whooping cough than of measles. There have been 210 cases and 5 deaths registered during the current year. Tetanus does not constitute a problem in the metropolitan area.

The drop in the number of cases and deaths caused by measles constitutes proof of the effective success of the vaccine against the disease. The vaccination campaign which is planned for the month of August is viewed as an effort of the General Health Commissioner's Office under the policy which the SAS is promoting throughout the country in the field of prevention. For, in truth, it is not possible to explain or justify the fact that diseases which can be prevented with vaccines still crop up at the present time. In this fight, the General Health Commissioner's Office of the Federal District and the Sucre District of Miranda State will put into play all its resources to reach the intended goals.

Dr Arizaleta explained that the program includes the inoculation of 250,000 children with the triple vaccine, and 190,000 children with the anti-measles vaccine. But it must be kept in mind that if the total number of vaccinations is less than the projected figure, this might result in the vaccination of susceptible children only--that is to say, children who have not been vaccinated before, who have not had the diseases, and who do not present contraindications to the administration of the vaccines. A contraindication could be the suffering of some disease. In those cases, they should be vaccinated at any of the health centers once the contraindication has disappeared.

Finally, Dr Alfredo Arizaleta said that the Federal District community has always displayed a high spirit of cooperation when the health office carries out a program of this nature to protect the health of the people. For that reason, it is expected that they will lend all their help in this program to facilitate the vaccination task of the workers whether on the administration of the first doses of triple and anti-measles vaccines between the 1st and the 12th of August, or of the second dose of triple vaccine between the 5th and the 16th of September, or of the third dose of triple vaccine between the 3d and the 14th of October.

Caracas ULTIMAS NOTICIAS in Spanish 24 Jun 77 p 24

[Article by Ricardo Marquez]

[Excerpt] The SAS is concerned with everything relating to the lowering of the morbidity and, consequently, the mortality of diseases which can be prevented by vaccination, something which would not be possible without a significant rise in the level of protection.

Dr Parra Leon [the minister of health] noted that the proposed goal of protecting the susceptible group of the population with the triple vaccine has not been met, even though the number of third doses was increased

39 percent in 1976 as compared to 1973, therefore the decision to carry out again this year the campaign to administer the triple, anti-measles and anti-tetanus vaccines is based on the knowledge that higher levels of protection can be attained for the susceptible group.

Caracas EL NACIONAL in Spanish 4 Jul 77 p D-5

[Excerpt] San Fernando de Apure, 3 Jul--A massive vaccination campaign was begun in the district of Paez of this state in order to protect the infant population, which is the most affected during the flood season.

The information was made known in circles close to the district Civil Defense committee, where it was pointed out that vaccination was begun in the rural areas against diphtheria, tetanus, measles, "lechina" [whooping cough?] and smallpox.

Members of the Ministry of Health, the Armed Forces of Cooperation and the army are participating in that sanitary campaign. The last mentioned organization is also engaged in rescue operations and relocation of the victims. The state government sent 3,000 kilograms of medicines by plane to the Paez District.

Caracas EL NACIONAL in Spanish 24 Jun 77 p C-8

[Text] Barcelona, 23 Jun--The state government and the local sanitary authorities have ordered the vaccination of the infant population of the workers' development of Tronconal, which is in a state of medical emergency because of the overflow of the sewers.

It was officially announced today that 15,000 children have been vaccinated against measles, whooping cough, tetanus, diphtheria and poliomyelitis. The school group of Tronconal III and the service units are operating as collective vaccination centers.

Concurrently with this campaign, the National Institute of Sanitation Works (INOS), the National Housing Institute (INAVI) [?] and the state Public Works Department are continuing their environmental sanitation task. Malariology is carrying out spraying activities in the area, while a new drainage canal is being constructed and the sewer catch basins and pumping station are being expanded, according to engineer Diego Penalver Gomez, the governor of the state.

NEW SANITATION PROJECTS IN OPERATION; 3 MILLION BENEFIT

Caracas EL UNIVERSAL in Spanish 2 Jul 77 p 11

[Text] More than 357,000 persons of several communities of the states of Aragua, Carabobo and Guarico will benefit from a number of sanitary works which the National Institute of Sanitation Works (INOS) is delivering this weekend to improve the environment and the quality of life of the inhabitants of those areas.

The works which are to be put into service cost approximately 40.5 million bolivares and involve 14 communities. Those works include the expansion of the water systems in Maracay and El Limon and of the sewers of the capital of Aragua, Cagua and San Francisco de Asis. Put into service in Carabobo are water systems at Miranda and Mariara, sewer systems at Valencia, Bejuma, Mariara, San Joaquin and Guacara, as well as the drains of Valencia, which will improve the sanitary conditions of the population once the winter sets in. Waterworks were also completed at San Juan de los Morros and Calabozo, where sewer and drain systems were installed as well. Meanwhile, pipelines for the collection of sewage were installed at Ortiz and El Sombrero. With these works, the INOS has taken care of the basic sanitary needs of more than 3 million people spread over 19 federal entities, since 2 October of last year to date, as part of a national program to provide all Venezuelans with facilities for environmental sanitation and physical well-being.

This group of works, which will serve approximately one-fourth of our population, will constitute in addition a bolster for the integral development of these industrious communities basically dedicated to various economic activities, including agriculture, cattle raising and sundry industries.

Caracas EL UNIVERSAL in Spanish 19 Jun 77 p 15

[Excerpt] Cost Figures

Aragua State

| | | | |
|------------------------|-----------------------|-------------------------|---|
| Water system works in: | Maracay | 5,959,358.94 bolivares | |
| | El Limon | 1,579,344.40 | " |
| Sewer system works in: | Maracay | 4,918,777.75 | " |
| | Cagua | 142,243.64 | " |
| | San Francisco de Asis | 1,153,224.34 | " |
| | Total Aragua State | 13,752,949.07 bolivares | |

Carabobo State

| | | | |
|------------------------|----------------------|---------------|-----------|
| Water system works in: | Miranda | 965,984.49 | bolivares |
| | Mariara | 506,939.47 | " |
| Sewer system works in: | Valencia | 3,804,686.83 | " |
| | Bejuma | 493,362.72 | " |
| | Mariara | 1,058,220.96 | " |
| | San Joaquin | 1,943,453.96 | " |
| | Guacara | 2,003,103.72 | " |
| Drainage works in: | Valencia | 6,101,911.55 | " |
| | Total Carabobo State | 16,877,663.67 | bolivares |

Guarico State

| | | | |
|------------------------|------------------------|--------------|-----------|
| Water system works in: | San Juan de los Morros | 803,209.39 | bolivares |
| | Calabozo | 374,262.59 | " |
| Sewer system works in: | Calabozo | 4,100,243.09 | " |
| | El Sombrero | 720,022.86 | " |
| | Ortiz | 1,611,701.58 | " |
| Drainage works in: | Calabozo | 2,310,969.38 | " |
| | Total Guarico State | 9,920,408.89 | bolivares |

| | | |
|----------------------------------|---------------|-----------|
| Grand total for three states | 40,551,021.63 | bolivares |
| Total number of people benefited | 357,000 | |
| Number of communities benefited | 14 | |

Caracas EL NACIONAL in Spanish 18 Jun 77 p C-10

[Text] A number of water and sewer system works will be put into service today to improve the sanitary conditions of various communities in the northeastern states of the country which up to now have suffered from deficient water systems and lack of facilities for the disposal of sewage, improvements which are essential for the eradication of diseases originating in water.

The works constructed by the INOS at a total cost of 16 million bolivares will benefit a population of approximately 80,000 inhabitants in the states of Anzoategui, Sucre and Monagas. In the first of those states, water pipelines were installed in the Universitario, Sucre, El Espejo, 23 de Enero, Pico de Maurica, Zona Industrial, La Aduana, El Bolsillo, Menca de Leoni, Valle Lindo and Portugal Abajo sections, inhabited by the common people of the Anzoategui capital. In addition, the Chuparin Arriba

section was provided with a sewer system, and the catch basins and mains of the San Jose section of Puerto La Cruz were expanded.

Two new wells were drilled in San Jose de Guanipa which will greatly improve the supply of the liquid for the population.

The water system of Cantaura and the sewer system of Panaguan were expanded to eliminate sanitary problems in those two communities.

In Sucre State, the pipeline from Los Bordones to El Tocal will be put into service, the water system for the sections adjacent to the Cumana-Cumanacoa Road was expanded, and a well was built and the water main was expanded in Santa Fe.

Drainage works were also carried out in Cumana, traversing an important area, in order to deliver the runoff to places where it will not affect the living conditions of the section.

In Monagas State, the sewer system of the crowded Antonio Jose de Sucre section was delivered, and wells were drilled and a pipeline was built in Barrancas.

All these works will serve to bolster the growth of these friendly eastern communities, tourist attractions of our country where the congenial inhabitants will no longer suffer from deficiencies and will enjoy improved living conditions with the sanitation works being delivered to them on this date.

EPIDEMIC REPORTS PROVED FALSE, BUT VACCINATION CONTINUES

Caracas EL UNIVERSAL in Spanish 16 Jun 77 p 2-9

[Text] An investigation to verify reports about the alleged death of 17 children in the area of Tacagua was conducted by the Ministry of Health and Social Welfare through the Health Commissioner's Office of the metropolitan area, and it was determined that there has been no epidemic outbreak nor the number of deaths which an inhabitant of the place reported to a local newspaper.

The investigation in question was personally conducted by employees of the above-mentioned agency of Health and Social Welfare (SAS), the Sanitary Unit of Catia and the Service Units, who observed the hygienic and sanitary conditions in which the inhabitants of the area live.

Dr Isidro Toro Alayon, head of the Health Commissioner's Office of the Federal District and the Sucre District of Miranda State, said that the doctor on duty at Tacagua reported only the death of the 4-month-old infant Xiomara Torrealba as a result of pneumonia.

But the homes were visited in order to perform a thorough epidemiologic investigation, and it was discovered that the only disease which some children had was a simple type of common cold which at no time could constitute an epidemic.

Dr Toro Alayon explained that although there are still some faults in the disposal of waste matter, the supply of drinking water and other things, it is considered that the sanitary conditions are rather satisfactory. What was uncovered in the area was an abundance of flies, common at this time of the year with the onset of the rains, the season in which the cases of diarrhea and enteritis increase throughout the country. As is known, when flies light on waste matter and then on food, they transfer to the latter bacteria and other germs which, upon ingestion, reach the digestive tract and cause diarrhea and other diseases.

Therefore, in view of this situation, the Malariology and Environmental Sanitation Zone 10 was asked to spray the whole area to eliminate the flies. The Anti-Rabies Service of the metropolitan area will also begin a program to eliminate dogs.

As a complement to these activities, the Epidemiology Service of the Sanitary Unit of Catia, jointly with the medical personnel of Tacagua, will start vaccinating children to protect them against measles, and will administer the triple vaccine to immunize them against diphtheria, tetanus and whooping cough. In like manner, adults will be immunized with anti-typhoid vaccine in accordance with the regular programs of preventive medicine which the agency is carrying out throughout the country, to prevent any case of the disease.

When he insisted that the number of reported deaths have not taken place, Dr Toro Alayon referred to the report of the investigative commission, which includes statements of local inhabitants who declare that there have been only five deaths of children due to various causes during the 6 months of this year.

MORBIDITY STATISTICS RELEASED BY VARIOUS SOURCES

Caracas EL UNIVERSAL in Spanish 10 Jul 77 p 29

[Text] Barcelona, 9 Jul (INNAC)--Anzoategui now has a total of 410 cases of tuberculosis.

The report to this effect was made by Dr Oswaldo Rodriguez Chirinos, a lung physician specializing in chronic diseases who is an assistant to the health commissioner in this state.

"The figure for tuberculosis," he added, "amounts in all to 410 cases, including the new and chronic."

"And what's going on?"

"Many tuberculosis patients are escaping from their hospitals, and this situation is creating a serious problem for public health.

"The figure can't help but be alarming."

Caracas EL NACIONAL in Spanish 5 Jul 77 p C-3

[Text] Maracaibo, 4 Jul--In the Venezuelan portion of the Guajira Peninsula, almost 700 of each 1,000 children less than 2 years of age are suffering from gastroenteritis, according to the statistics of the local health authorities for the last 3 years.

The Venezuelan Guajira, composed of the Mara and Paez districts, is formed into a single jurisdiction for health purposes.

Referring specifically to cases in Zulia over the last 3 years, Dr Elias Anzola Perez, an epidemiologist on the state Health Commission, indicated that an increase in cases of gastroenteritis had been observed recently, although there had been a decrease in mortality.

In 1975, 36,326 cases with 525 deaths (1.4 percent) were recorded; in 1976, there were 29,460 cases with 366 deaths (1.3 percent); and according to the statistics for the first 6 months of this year, it is estimated that by the end of 1977 there will have been 26,110 cases with 422 deaths (1.6 percent).

Dr Anzola Perez points out that a decrease in cases of gastroenteritis has been noted in all health districts in Zulia except the Mara-Paez (La Guajira) Health District, where it has now been established that of each 1,000 children less than 2 years of age, 698 are suffering from gastroenteritis.

Caracas EL UNIVERSAL in Spanish 5 Jul 77 p 30

[Text] There are three circumstances in Venezuela that cause a high rate of mental retardation: 50 percent of the population is less than 14.5 years of age, a large majority of women experience difficulties in labor, and a great many mothers are less than 16 years old.

These observations were made by Dr Charles V. Keeran, permanent adviser since 1970 of the Venezuelan Association of Parents and Friends of Exceptional Children (AVEPANE), associate director on the administrative staff of the Center for Mental Retardation, chairman of the Committee on Legislative and Social Affairs of the American Association for Mental Deficiency, and president of the American Association of University Affiliated Programs.

Dr Keeran is an expert on the administration of programs for mental retardation and social work. He has made many visits to Venezuela.

"What does the expenditure made in the United States for the treatment of mental retardation amount to?"

Dr Keeran referred specifically to the state of California. He said that the direct cost is \$700 million of an annual budget of \$14 billion. The amount devoted to the care, education, and all services related to the treatment of mental retardation in California ranges between 4 and 5 percent.

The expert stated that in very few states is this investment below 3 percent or above 5 percent.

"How much does the treatment, education, and training of a mentally retarded person cost in the United States?"

"The average cost per year for a child or adult diagnosed as mentally retarded is \$5,000. The federal budget for research in this field is \$17 million. In addition to this contribution, there are 40 universities in North America engaged in research in mental retardation. Thirty are self-supporting, and 10 receive funds from the state in which they are located."

Dr Keeran laid stress on two aspects he considers fundamental for prevention: the education of the future mother and the character of teachers and of educators with backgrounds in psychology.

Referring again to his country, he said that there is a risk of mental retardation in the children of young people who take drugs, although, on the other hand, there were good preventive services, and this makes the situation less dangerous.

Caracas EL NACIONAL in Spanish 5 Jul 77 p C-4

[Text] A study of the 5-year period 1970-1974 made by Dr Mendez Russ, chief of the Division of Statistical System and Computation, of the Ministry of Health and Welfare [SAS], shows that respiratory diseases in Venezuela are constantly increasing.

Dr Rafael Belmonte, a lung specialist on the staff of the University Hospital of Caracas, brought Dr Mendez Russ' report to the newsroom.

"Look at the statistics of the problem," Dr Belmonte said, pointing to the figures. "The bulletin published by the SAS shows an average for this 5-year period of 1,024 deaths from tuberculosis. That is the last study made up to the present."

The university specialist referred to another way of measuring the problem, through a count of the number of persons falling ill during a year. Thus, 4,102 new cases were reported in 1974, and a total of 4,109 for 1975.

"It is our understanding," he said, "by reason of the fact that the hospital where I work is in constant touch with the problem, that the number of new cases for 1976 and 1977 is greater, and the rest of the doctors in the country can vouch for this."

Dr Belmonte gave another standard of measurement, which is the number of persons infected with the Koch bacillus. This does not in itself mean they are ill, as this is established by the tuberculin test (PPD).

According to that, the most important figures in tuberculin surveys, or the infection rate, are the following:

In 1975, according to the University Hospital lung specialist, the infection rate was 6.2 percent for those between 0 and 4 years of age, 7.4 percent for ages between 5 and 9, 14.3 percent for ages between 10 and 14, 26.1 percent for ages between 15 and 19, and 44.3 percent for those over 20.

"However, the goals proposed by WHO," he explained, "are 2 percent for children less than 4, 10 percent for those between 5 and 9, and 15 percent for those from 10 to 14. The present 6.2 percent for children under 4 must be lowered to the 2 percent set by the WHO."

In respect to other respiratory illnesses, such as pneumonia, the increase in the same 5-year period is shown as follows: 1970, 9,512 cases; 1971, 11,560; 1972, 15,635; 1973, 16,194; and 1974, 18,934. The average was 14,367 persons who fell ill with pneumonia.

The increase in chronic obstructive bronchopulmonary illnesses during those 5 years is reflected in the figures 4,635, 4,941, 6,218, 6,996, and 7,667, respectively.

Dr Rafael Belmonte struck a balance: adding the number of tuberculosis cases, the annual average comes to a total of 25,658.

He also reported that the WHO has established, in relation to the anti-tuberculosis campaign in countries such as the United States, for example, that every child should be vaccinated at birth with BCG [Bacillus Calmette-Guerin]--in other words, total coverage. For countries such as ours, however, it establishes that the coverage can be considered good if it is between 80 and 85 percent. A coverage of 70 percent for children leaving the sixth grade would be satisfactory.

"It was charged in 1975," Dr Belmonte recalled, "that only 193,468 infants of the 437,193 who were born were vaccinated, or 40 percent. And for the population less than 15 years of age, only 255,826 children--5 percent of the total--received the BCG vaccine."

The doctor stated that on that occasion the answer of the officer in charge of the Department for the Antituberculosis Campaign and Chronic Respiratory Diseases was: "The vaccines brought to Venezuela did not present the biologic qualities required for vaccination," and he promised at the time that a vaccination plan would be begun as of January 1976.

"This plan," he recalled, "was to begin for the indigenous population and would then cover the entire Venezuelan population. There were to be 4 million units of vaccine. It is apparent, after 18 months, that barely 1.2 million units of vaccine have been used. This is equivalent to 30 percent of the coverage that had been proposed."

The health official was then asked, "Doesn't this constitute a public health problem?"

In order to add more force to what he was saying, "Because when I make a statement, I do so always on scientific and technical bases, neither acting in bad faith, confusing public opinion, nor discrediting others," Dr Belmonte presented the figures he had learned from a personal study:

"I have just reviewed 210 medical histories of newly born babies (less than 4 weeks old) in the University Hospital. Only 63 had been given BCG. Barely 30 percent of the total."

IMMUNOLOGICAL CLINIC IS PIONEER PROJECT

Caracas EL UNIVERSAL in Spanish 11 Jul 77 p 1-20

[Text] Venezuela occupies a pioneering position in Latin American clinical immunology by virtue of the work performed by the National Reference Center of Clinical Immunology created 2 years ago by initiative of the Ministry of Health and Social Welfare and the Central University of Venezuela.

Upon completing 2 years of activity, Dr Nicolas Blanco, director of the center, presented a summary of the accomplishments to date, underscoring the active participation of the members of the institution on a national scale, who provide it with a fully decentralized structure and operation which has been recognized by international organizations as unique in Latin America.

"The National Reference Center of Clinical Immunology," said Dr Blanco, "has been developing five regional units with the basic concept of

research as the fundamental mainstay for proper teaching and adequate assistance.

"In this manner, we have placed those five regional centers, with their immuno-diagnostic facilities, with the opening of five specialized laboratories and external consultations on clinical immunology, at the service of 14 states."

One of the most significant advances made by this center, which is based at the Anatomicopathological Institute of the School of Medicine of the Central University of Venezuela, is the completion of a series of researches of extraordinary importance.

"Those first researches," said Dr Blanco, "relate to lupus erythematosus systemic, seronegative spondylarthritis and autoallergic thyroiditis. As an example of interdisciplinary investigation, those researches have been jointly conducted with the National Rheumatic Disease Center of the Ministry of Health and Social Welfare, the Thyroid Clinic of the General Hospital of the Venezuelan Social Security Institute (IVSS), and the Clinical Research Laboratory of the Medical Department of the University Hospital of Caracas."

HOSPITALS REPORT INFANT MORTALITY STATISTICS, CAUSES

Caracas EL UNIVERSAL in Spanish 10 Jul 77 p 19

[Article by Juan Inojosa]

[Text] In the clinicopathologic course on renal diseases offered at the Second Medicine Service of the University Hospital of Caracas, it was established that those diseases are the third-ranking cause of death among the Venezuelan population, and also that acute glomerulonephritis, most common among children, is closely associated with streptococcal throat infections. Those infections also cause rheumatic fever and severe heart damage.

Dr Fortunato Rosa Arevalo was the coordinator. Dr Antonio Sanabria, chief of the Second Medicine Service and professor of Medical and Therapeutic Clinic "B" of the Luis Razetti School of Medicine of the Central University of Venezuela (UCV), Dr Ana Recagno de Rousse, Dr Vincenta Lugo de Franco and Dr Atahualpa Pinto participated in it. The course received the cooperation of the Audiovisual Center, with the participation of doctors Francisco Jose Croquer, Mario Durand, Rodolfo Papa and Jose Rafael Bravo.

The clinical and immunopathological aspects, light microscopy, immunofluorescence and electronic microscopy were discussed.

When referring to the monumental treatise "The Kidney," by Brenner and Rector, Dr Antonio Sanabria said that in a "relatively short time, clinical nephrology rose among medical specialties as an extremely worthy and respected constituent. This impressive transformation can be attributed to the development of two easily identified areas. The first concerns the fast growth of knowledge about normal renal physiology, and the selective influence which immunological, infectious, vascular and metabolic attacks exert over it. The second concerns the remarkable progress attained, and still being attained, in the area of the treatment of renal diseases, including homotransplantation and dialysis above all else."

In 1967, Dr Sanabria started giving a course on renal ultrastructure and physiopathology in Medicine Class "B," after having observed at the Royal College of Surgeons of London the diagnostic possibilities of electronic microscopy, and aided by the excellent color illustrations of a pamphlet on the "Infrastructure of the Glomerulus" written by Hans Elias in 1956, and the doctoral thesis of Johannes Rodin on the same subject.

Then, in 1958, he started working on experimental nephropathies at the Ultrastructure Laboratory of the Venezuelan Institute of Scientific Investigations (IVIC) headed by Dr Villegas. From this experience, he published two works: one about ultrastructure alterations produced in rats by mercurial diuretics, and another about acute renal insufficiency. With the help of Jose Nunez, now an eminent pharmacologist, he made the first renal biopsies which were studied with the electronic microscope, managing to observe the alterations of the pedicles in two cases of lipoid nephrosis in children. Subsequently, he began ultrastructural research on experimental Chagas disease.

Activity of the Glomerulus

A final filtration of plasma and urine takes place in the glomerulus. That liquid is later modified when it goes through the tubules and the final urine is obtained, which goes on to the bladder to be secreted.

Dr Ana Rocagno de Rouse--who took a postgraduate course on internal medicine and nephrology in England and a training course on electronic microscopy at Washington University--said that the nephritic syndrome becomes evident when the patient swells in the face, around the eyes and in the legs.

Dr Rocagno de Rouse is a professor of the Medical Clinic and Therapeutics Class "B" of the Luis Razetti School of Medicine.

She explained besides that bilharzia also causes demonstrable renal diseases in animals and humans in some instances. The Brazilian school has considerable experience in bilharzian nephritis.

Immunologic Mechanisms

In the course--which was offered in connection with the 150th anniversary of the School of Medicine of the UCV--Dr Vicenta Lugo de Franco, who studied nephrology at the Cardiorenal Section of the Peter Bent Brigham Hospital of Boston, referred to renal immunopathology.

"One is dealing," continued the specialist, "with the explanation of the pathogeny from the standpoint of the immunologic mechanisms of renal diseases: specifically, with the mechanism of production of glomerulonephritis in humans and animals. Acute glomerulonephritis is most frequent in children and is related to streptococcic infections which settle in the throat and generally react favorably when treated in time. However, 40 percent of them do not have a favorable reaction."

Dr Vicenta Lugo de Franco also talked about proliferating glomerulonephritis, which is most frequent among young persons and evolves in large measure into chronic renal insufficiency which is terminal in approximately 10 years, hence the patient has to resort to hemodialysis and renal transplant.

She stated besides that work is being done on pregnant eclampsia, a disease which raises maternofetal morbidity and mortality, in cooperation with the Obstetrics Service. Eclampsia is a disease which is characterized by general edema (swelling), arterial hypertension and albumin in the urine. The disease can evolve rapidly. It is marked by convulsive fits similar to those of epilepsy, and it occurs in some pregnant women at the time of birth or shortly afterwards.

The Anatomicopathologist

Dr Atahualpa Pinto, of the Pathological Anatomy Institute of the Luis Razetti School of Medicine, underscored the need of an early diagnosis and, naturally, of a more effective treatment whenever possible.

He said that the pathologist forms part of the team which studies renal diseases. "There," he noted, "the performance of renal biopsies in children and adults is most important. By means of this technique, the tissue is studied by light microscopy, immunofluorescence and electronic microscopy."

An Ambitious Project

Dr Francisco Jose Croquer, one of the enthusiastic creators of the Audio-visual Center, stated that the idea is to build a center of this type for the School of Medicine in order that it will not be limited to the Second Medicine Service, and even to set it up in hospitals and find out if the state TV channels are interested in and capable of divulging the medical procedures, the new knowledge, the new techniques to the doctors of all

the sections of the country. The goal is to develop a program of continuous medical education.

"We think that with the help of the officials of the School of Medicine," continued the internist, "as well as of the National Council for Scientific and Technological Research (CONICIT), this project will become a reality. We will be able to make known our work throughout the national territory in the near future. For the time being, we have received an offer from Washington University. They want material about tropical diseases. We will send it when it is ready."

Dr Croquer reported that 810 hours of videotape had been recorded up to this time.

"We expect aid from the National Horse Racing Institute to carry out a project to educate hospital patients on the prevention of diseases," pointed out the specialist.

Dr Mario Durand acted as commentator and doctors Rodolfo Papa, Jose Rafael Bravo and Francisco Croquer acted as technical assistants at the Audio-visual and Medical Illustration Center. Color videotapes on the performance of a renal biopsy were recorded for the mentioned course.

Caracas EL UNIVERSAL in Spanish 4 Jul 77 p 15

[Text] The J M de los Rios Children's Hospital is taking care of 18,000 children of up to 12 years of age every month, which makes up a high volume of ambulatory assistance. This assistance center has only 265 pediatric beds for hospitalization.

Dr Zaira de Andrade, with the collaboration of pediatricists Carmen Teresa Correa de Alfonso, Celia Castillo de Hernandez, Cecilia Montesinos and Cirila Sanchez, presented at the 2d Study Session on the Preschooler in Venezuela a paper on morbidity and mortality among preschoolers discharged at the J M de los Rios Children's Hospital from 1 January to 31 October 1976. The term morbidity refers to the number of persons who become sick among a certain population at a given time. The study in question emphasized that children under 7 years of age constituted 85 percent of those discharged during the stated period.

Children over 7 years of age represented 15 percent, and under 1 year of age 51 percent of the discharged preschoolers. The assistance provided by hospitalization of children under 2 years of age was 79 percent of the demand. The specialists noted the need for the assistance policy to be specifically directed at these age groups.

Males predominated over females by 56 percent to 43 percent among the youngsters under 12 years of age discharged at the children's hospital.

When surveying the population with reference to the number of discharges, it was noted that 15 percent were readmitted, a figure which is similar to that found in previous studies.

The disease most commonly found among the whole subject population is predominantly exogenous. Infectious intestinal diseases (54 percent) and respiratory tract diseases (51 percent) continue to occupy the first places among the causes of morbidity in preschoolers. If each one of these diseases is capable of affecting the health of the youngsters by itself, the fact of two or more of them occurring together, as revealed by the actual figures, is an indication of the socioeconomic and sanitary-welfare deterioration of the homes from which they come.

The low figure of malnutrition (26 percent) does not reflect the institutional reality, explain the specialists of the J M de los Rios Children's Hospital.

Higher Mortality at Lower Ages

The records checked in search of precisely that detail--low level of malnutrition--have disclosed on different occasions that its diagnosis is frequently ignored by the hospital doctors. The figure of 38 percent undernourished patients in the demand satisfied by outpatient treatment in May 1974 and of 40 percent in October 1975 lead to the conclusion that malnutrition among hospitalized preschoolers must be higher. These rates contradict the results of researches which have shown a high prevalence of malnutrition among patients hospitalized for various reasons: 43 percent in 1960 and 51 percent in 1961.

The average number of days of confinement for the subject population was 13. The average bed/day cost this [garble] was 428.65 bolivares, the average cost per patient was 5,571.28 bolivares, and the total outlay for restoring the health of 4,149 preschoolers during the 10 months of the study was 23,115,240 bolivares.

The overall mortality was 9 percent. The supposition that the lower the age, the higher the mortality is confirmed upon analysis of the deaths by age groups. Some 33 percent of the deaths occurred during the initial 48 hours of hospitalization, which discloses the serious condition in which some children entered the hospital.

When studying the eight major causes of mortality among the subject population, it is observed that six of them, or 72 percent, correspond to a pathology of exogenous origin, and that malnutrition was found out to be a related cause in 26 percent of the cases.

Weight at Birth

In the breakdown of morbidity and mortality by age groups, the doctors emphasize the following:

Some 11 percent of the subject population represented by newborn babies showed a pathology with a high exogenous index and an unspecified prematurity of 30 percent. As to mortality in connection with this group (18 percent), the doctors call attention to deaths due to tetanus and congenital syphilis, as well as to prematurity as a related cause of death in 50 percent of the children. Upon investigating the effect of the weight at birth on mortality, it was found out that the death rate of children born with a weight of 2,500 grams or less was 30 percent, while that of those born with a higher weight was 13 percent. The author of the work and her collaborators note the effect of the weight at birth on mortality among children under 29 days of age.

Poor Socioeconomic Conditions

The group from 1 to 11 months of age--constituting 40 percent of the discharged preschool population--showed infectious intestinal diseases as the first cause of morbidity in 91 percent of the cases. Likewise, respiratory tract diseases occupied the second place in 57 percent of the cases. With the exception of congenital anomalies, which occupied the seventh place, all the diseases conformed to a pathology of exogenous origin. The majority of the diseases in this group occurred together with one or two others, as indicated by the actual figures.

The diseases brought about by poor socioeconomic and environmental conditions make up for almost all of the morbidity in terms of frequency among children of 1 year of age, who constitute 18 percent of the subject population. The first place in this group belongs to respiratory-tract diseases (72 percent), with a preponderance of pneumonia and bronchopneumonia. Iron-deficiency [?] anemia presents a significant figure, and undernourishment made up for 38 percent of the cases. Although septicemia did not figure among the first 10 causes of morbidity, it occupies the first place among the causes of death in 1-year-old children. Measles with complications is the second cause. Amebiasis, which was noted in 28 children in connection with morbidity, occupied the fourth place among the causes of mortality.

Among the most common diseases in the discharged 2-year-old children--10 percent of the surveyed group--pneumonia and bronchopneumonia, iron-deficiency anemia and helminthiasis present significant figures in connection with morbidity. Undernourishment occupied the fourth place. Under the pathology of the causes of death in children of 2 years of age, the first five causes continue to be easily preventable. Amebiasis, measles and whooping cough figure among the causes of death. Malnutrition was a related cause in 28 percent of the deaths.

Preventable Diseases

With respect to morbidity among children of 3 years of age--7 percent of the subject population--the urogenital diseases appear for the first time in the fifth place of the most frequent diseases, which include nephritis. A pathology of exogenous origin continues to predominate. Malnutrition ranks fourth with 29 percent, and measles is in the seventh place. Among the infectious intestinal diseases, amebiasis occupied the top place. Among the causes of death of this group, measles and whooping cough--which jointly with diphtheria and tuberculosis, all of them preventable diseases, constitute 74 percent of the analyzed cases--made up 38 percent. Malnutrition was present as a related cause in 63 percent of the deaths.

Like the 3-year-old children, 4-year-old children--5 percent of the subject population--present urogenital diseases in sixth place of the order of frequency, with nephritis occupying the first place.

As in all the groups studied to date, the predominance of diseases of environmental origin is evident. Helminthiasis occupies the first place with 39 percent. Iron-deficiency anemia ranks first among blood diseases. Malnutrition occupies the fourth place with 24 percent, and measles continues to form part of the main pathology in the eighth place. As to mortality, the presence of measles on the list and the 17 percent registered by malnutrition as a related cause of death drew attention.

Caracas EL UNIVERSAL in Spanish 20 Jun 77 p 22

[Text] Some 365 rehydration centers located in hospitals, health centers and rural dispensaries are operating in the country, according to Dr Pedro Gonzalez Mijares, who is associated with the Mother and Child Division of the Ministry of Health and Social Welfare.

He said that the operation of these centers show very positive and satisfactory results when one takes into consideration the reduction in mortality due to diarrhea and in deaths in general. Infant mortality in Venezuela is one of the lowest in Latin America. In that sense, it is convenient to note the mortality rate of 41 years ago, when 200 children out of every 1,000 live births would die. Infant mortality at the present time is 43 children out of every 1,000 live births. This drop in infant mortality is the result of the mother and child care programs, in which the rehydration centers play an important role.

Dr Gonzalez Mijares announced that the rehydration centers are organized according to the need for the service, the existing possibilities and the resources which can be applied. They help to provide more ample assistance to the population, as well as make it possible to determine the health problems in each area of the infant sector, seeking a solution to those problems in accordance with the resources and its specialists.

[Text] The National Immunization Plan constitutes the basic aspect of the policy of the Ministry of Health and Social Welfare. So stated Dr Antonio Parra Leon, chief of Health and Social Welfare (SAS), when he opened the meeting of the health commissioners of the country to study all the aspects of the national vaccination program which soon will start its fight against measles, whooping cough, diphtheria and tetanus. Regional epidemiologists and chief nurses, office directors and chiefs of divisions, and specialists in charge of some health programs are also in attendance.

He expressed his concern about reducing the morbidity and, consequently, the mortality of diseases which are preventable by vaccines, something which will not be possible without a significant increase in the level of protection against such diseases among the susceptible population, attainable only on the basis of a significant parallel rise in the administration of the corresponding vaccines. In this sense, a positive fact is noted in the increase of vaccinations against measles from 174,551 in 1973 to 439,921 in 1976. This represents a rise of 152 percent, bringing about at the same time a progressive decline in mortality in the last triennium devoid of the occurrence of any outbreak which reached the figure of 1973. The third-dose vaccinations against poliomyelitis have been kept up through those years.

With respect to the triple vaccine, he said that even though the number of third doses was increased 39 percent in 1976 as compared to 1973, the intended goal for protecting the susceptible group of the population has not been achieved. Therefore, the decision to carry out the campaign again this year to administer the triple, anti-measles and anti-tetanus vaccines is based on the knowledge that higher levels of protection can be attained for the susceptible group.

Minister Parra Leon said that this measure constitutes the interpretation of the manifest desire of the president of the republic to attempt by whatever means are necessary to remedy the current situation with the preventable diseases, which still make our morbidity and mortality rates higher than the degree of development of the country would warrant.

He said that there has been much debate about the vaccination campaigns being the ideal method to control these diseases. But in any case, experience demonstrates that solely by these measures has it been possible to eradicate measles not only in Venezuela, but in the world as well. In like manner, the success obtained against poliomyelitis has been achieved by this procedure too. Moreover, it is decided that vaccination campaigns will be necessary to the extent that ordinary vaccination activities fail to attain safe levels of protection, and they will always be designed to achieve well-defined goals.

Dr Parra Leon reported that the triple vaccine will be administered to children of 2 to 35 months of age, while the anti-measles vaccine will be administered to children of 9 to 35 months of age. These correspond to the vaccination schedule in effect, but special attention must be given to the vaccination of children under 2 years of age on account of last year's vaccination. The vaccination will be carried out in the urban area, reaching as far as the rural dispensaries and the easily accessible settlements. The campaign will take 2 weeks in such a manner that the local services will fully cover their area with their own personnel. Susceptible children, that is to say, those who have not been previously vaccinated or who have not suffered the disease, should be vaccinated. Children of the aforementioned ages are included when they do not present some contraindication--essentially febrile processes--to the administration of the vaccine.

The first dose of the triple vaccine and the single dose of the anti-measles vaccine will be administered simultaneously on different spots of the body between the 1st and the 12th of this coming August, the second dose of the triple vaccine between the 5th and the 16th of September, and the third dose of the triple vaccine between the 3d and the 14th of October.

Finally, Minister Parra Leon expressed the desire that the results this year will surpass those of last year. To achieve this, it is necessary to increase the efforts and to grant to it the greatest dedication for the maintenance phase to attain the optimum levels.

At the opening of the meeting, the minister was accompanied by doctors J. M. Padilla Lepage, Ali Mejias, Carlos Gil Garcia, Luis Moncada, Julio Marquez, Angeles Sotillo de Gooden and Francisco Bianco, and by the ministry press commissioner, Rafael Velasquez.

VIETNAM

CONTROL OF MALARIA

Ho Chi Minh City SAIGON GIAI PHONG in Vietnamese 23 Jun 77 p 4

[Article by Q.H.]

[Text] One million people take preventive medicine. The new economic areas receive special attention:

On the morning of 22 June, the Malaria Department opened a conference to review malaria work during the past 6 months.

According to the report of the department, because of doing a good job of preventing and controlling malaria, during the first 6 months of 1977 the malaria stations in the southern provinces promptly discovered and stopped malaria epidemics.

The key areas, including 264 villages and 7 districts subordinate to Ho Chi Minh City and Song Be, Dong Nai, Tay Ninh, Lam Dong, and other provinces, having cases of malaria have been sprayed with DDT to kill the mosquitoes.

After spraying DDT, the public health [stations] in the localities organized things for about 1 million people to take medicine to treat and prevent malaria and of these more than 150,000 were from new economic areas.

Song Be province is a place which has accepted many people from Ho Chi Minh City who have come to start careers. The local authorities have given much attention to preventing and controlling malaria. More than 66 percent of Song Be province has been sprayed with DDT and the people in Binh Long, Phuroc Long, Dong Phu, and Ben Cat districts have taken preventive medicine. This year, the number of people who have contracted malaria is 50 percent less than in 1976.

However, in order to prevent malaria prior to the rainy season, the Malaria Department is asking the local authorities to emphasize building sturdy, well-sealed houses for the people in the new economic areas in order to achieve results when spraying DDT to kill mosquitoes.

The local public health [stations] will distribute preventive medicine to people from Ho Chi Minh City who have come to start careers in the new economic areas during the first 6 months. The people must sleep under mosquito nets and avoid being bitten by mosquitoes.

Hanoi NHAN DAN in Vietnamese 28 Jun 77 p 1

[Text] VNA--The premier recently issued a directive on the eradication of malaria from our country.

The directive clearly points out: Over the course of many years in conducting the eradication of malaria, in northern provinces the incidence of malaria so far is 4 cases per 10,000 persons. Of course, a number of epidemic-like pockets of disease still exist in a number of localities, principally in the mountain provinces and the provinces of former zone 4.

In southern provinces, under the U.S.-puppet regime, malaria flourished, most seriously in the Tay Nguyen region, region 5, and former zone 6, killing many persons. After the south was completely liberated, the revolutionary regime made many efforts to combat malaria and achieved

noteworthy results; however, there are still 10 million persons living in malaria contagion regions and a high percentage of the people suffer from enlarged spleens and are carriers of the malaria parasite, which has great impact on the health of the people and on production recovery and development.

Based on the malaria situation in our country, in order to carry out the resolution of the fourth party congress on the eradication of malaria throughout the country, the premier has directed that:

By the end of 1980 we must have virtually eliminated malaria from our country. This is a very important, very urgent requirement aimed at protecting and strengthening the health of the people in order to create favorable conditions for economic and cultural development in accordance with the Second Five-Year Plan and to prepare well for the Third Five-Year Plan.

The goals to be met between now and 1980 are: In northern provinces we must complete the eradication of malaria and protect people in key regions such as: new economic areas, areas where the disease formerly existed, and regions to which the disease might return. In southern provinces, during 1977 and 1978, we must concentrate on stepping up the battle against malaria and protecting 4 million people in important regions such as: heavy malaria regions, new economic areas, regions which were bases for the former war of resistance, war-ravaged areas, and agencies, work-sites, state farms, state forests, factories, and units of the armed forces located in malaria regions and during 1979 and 1980 we must virtually eradicate malaria from all provinces and municipalities in the south.

People's committees at various levels in regions where malaria exists must formulate plans for the step-by-step eradication of malaria from their own localities. State agencies and units of the armed forces located in the localities must actively participate in the eradication of malaria according to a unified plan so as to form contiguous regions in order to conserve on labor, materials, drugs, chemicals, and so on.

MEASURES TO CONTROL HEMORRHAGIC FEVER

Ho Chi Minh City SAIGON GIAI PHONG in Vietnamese 21 Jun 77 p 1

[Article by Q.H.]

[Excerpt] During recent conferences, the cadres in charge of the public health station in Neighborhood 3, 8th Precinct, explained things to the representatives of the 45 street teams of the neighborhood so they would clearly understand the causes and the dangers of hemorrhagic fever, which is caused by mosquitoes.

In Neighborhood 3, approximately 30-40 percent of the stilt houses are built over dirty stagnant ponds. These are places which give rise to flies, mosquitoes, and rats and constantly pose a threat to the health of the people.

Clearly recognizing the above dangers and with the concern of the local authorities regarding the sanitation and disease prevention movement, beginning on 5 May 1977, the people throughout the neighborhood have actively carried on general sanitation activities, released seven-colored fish [ca bay mau] in the places where there is water, and slept under mosquito nets at night.

Thus, the percentage of serious diseases has clearly decreased in Neighborhood 3. Since the movement to kill mosquitoes was launched, illness has decreased and, in particular, hemorrhagic fever has decreased almost 50 percent.

AFP REPORTS DENGUE-FEVER EPIDEMIC IN HANOI

Hong Kong AFP in English 1240 GMT 23 Aug 77 BK

[Article by Jean Thoraval]

[Text] Hanoi, 23 Aug (AFP)--A dengue-fever epidemic has appeared in Hanoi and already killed one victim.

The epidemic came just a few months after the city was put on a plague and cholera alert. In view of the new threat, Hanoi's hospitals and dispensaries have been asked to keep as many beds open as possible and postpone minor operations.

The last time dengue-fever spread around Hanoi was in 1969. The toll was never known.

A message from the Health Service published today in the daily HANOI MOI said the disease was "complex and may create unforeseen complications."

Vehicles equipped with spraying machines supplied by UNICEF are already systematically spraying the streets of Hanoi to kill the virus-bearing mosquitoes.

Two of the hospitals in Hanoi, St Paul and Vietnam-Cuba Friendship Hospital, have been directed to form mobile emergency teams for children.

[Words indistinct] for the epidemic, the country hospitals must do so too," the paper said.

The symptoms of dengue-fever begin with an influenza-like illness and progress to hemorrhaging and partial paralysis of the limbs.

The only official victim so far died of a subsequent heart attack after being shuttled from one hospital to another.

A commentary in the HANOI MOI came straight to the point: "All the hospital personnel are to blame. A strict lesson must be drawn (from her case) and each person's responsibility must be clearly defined."

II. ANIMAL DISEASES

ARGENTINA

CAMPAIGN TO ERADICATE FOOT-AND-MOUTH DISEASE ANNOUNCED

Buenos Aires LA PRENSA in Spanish 23 Jul 77 pp 1, 5

[Text] A press conference was held in the Green Room of the National Secretariat of Agriculture to report plans to eradicate foot-and-mouth disease.

Under Secretary Alberto Miura gave a lengthy explanation. Others present were Dr Mario Cadenas Madariaga, head of the secretariat, and Dr David Arias, National Institute of Agricultural Technology [INTA] supervisor.

"Diseases, parasites and insects decrease production by about 20 or 30 percent," engineer Miura said at the beginning. He added that in some diseases the actual losses have to be multiplied because of the fact that the mere existence of the disease in the country decreases sales value abroad because Argentine animal products would not be accepted because of health precautions in those markets that pay higher prices. As to animal health, as in so many fields, our country has not progressed as fast as it should with the possibilities that advances in science and technology continually offer. This delay has made us lose our relative position with competing countries, although the disadvantage is not as large as has frequently been said.

Foot-and-Mouth Disease

Concerning foot-and-mouth disease, engineer Miura said that "within the mentioned group of problems, this disease (which is endemic in the area north of the Colorado and Barranca rivers) causes the greatest economic losses because of its characteristics and results. These losses surpass \$500 million a year.

"For more than a year," he added, "we have been working actively on programs of planned and efficient action to eradicate it in the country. The campaign initiated by CANEFA [expansion unknown] in 1960 has had positive results in decreasing physical losses. It controls the disease but because of its scope--it covers the entire country simultaneously with the exception of Patagonia and Tierra del Fuego--it cannot concentrate a large enough effort to eradicate the disease."

Concern

Engineer Miura did not deny that "there is concern about the outbreak in the country and its virulence. Official services have not recorded a larger number of cases than in previous years but the number increased a month earlier than last year."

The official offered the following example of cases of foot-and-mouth disease between 1 January and 30 June 1977: January, 57 animals infected; February, 113; March, 95; April, 288; May, 361; and June, 197. In the same period in 1976, the number of animals infected was: January, 44; February, 27; March, 25; April, 37; May, 285; and June, 511.

He then stated that the virus and its subtypes that appear in each case are followed very closely in order to detect possible variations immediately and in this way adapt the vaccines to the circumstances if necessary. No new type of virus has appeared in the country so far.

After other considerations, engineer Miura described how the Secretariat of Agriculture has planned to undertake an intensive and definitive action against foot-and-mouth disease in order to control it and then eradicate it. He continued that he had to point out the essential participation of a private organization, FADEFA [Argentine Foundation for Eradication of Foot-and-Mouth Disease]. It has given great effort and great capability to the country through the pilot plan of Hipolito Yrigoyen, and the conception of the plan to control and eradicate foot-and-mouth disease which we have finished.

The campaign has to cover different aspects such as good scientific and technical support, vaccine quality, control and diagnostic laboratories and action in the field.

Scientific and Technical Support

The virology and meat laboratories of INTA in Castelar work closely in cooperation with technicians from SENASA [National Health Services] to stay up-to-date in scientific knowledge and technical advances and to advance in research.

Engineer Miura continued that "an international cooperation project between INTA and GIDA/AL [expansion unknown] concerned with the use of

the INTA virology and meat laboratories in Castelar is being finalized. This institute will invest \$8 million in 4 years in addition to the \$23.7 million invested in the laboratories, which can be considered the best in the world."

Vaccine Quality

Engineer Miura continued that it is obvious that vaccine quality is very important to obtain positive results. Much has been said about its low immunological strength. In spite of the need for improvement, we are in the position to say that its strength has been satisfactory. The results obtained in the Hipolito Yrigoyen plan are evidence of this. The vaccine currently used in the country under proper supervision has reduced the outbreaks to 10 percent.

In order to insure the quality of the vaccines certified by the laboratories, the control system was modified. As of last 1 January quality control is checked on the finished product instead of on the cultivations of each virus as was done before. This eliminates the lack of control over the dilution and division process where damage or adulteration could occur.

Engineer Miura continued: "Today (yesterday) a resolution has been signed to raise the minimum that will be required for approval of vaccines against foot-and-mouth disease from 1.20 to 1.66 DPB starting 1 October 1977. Our goal at this time is to reach 3 DPB within a certain deadline."

Laboratories

The official pointed out that Argentina, whose livestock production has such a distinguished position, must have and will have adequate laboratories for the important production that they support. Thus a resolution has been signed to form a commission to draw up a construction project for new laboratories because SENASA now works in old installations of the Buenos Aires Veterinary Department. These central laboratories are complemented with a field in Las Plumas, Chubut Province, which is an area free of foot-and-mouth disease where there are animals without immunity for vaccine control, and 12 regional laboratories.

Work in the Field

Our country is divided into three zones with reference to foot-and-mouth disease: free zone--the provinces of Chubut, Santa Cruz and Tierra del Fuego; zone of outbreaks--the provinces of Rio Negro and Neuquen; and infected zone--the rest of the country.

A health barrier has been strictly imposed at the Barrancas and Colorado rivers for the preservation of the free zone and final eradication in Rio Negro and Neuquen.

Engineer Miura said that the idea "is to free areas slowly until the free areas cover the entire country."

8.53 Million Hectares

This first zone covers 8.53 million hectares, 12,668 establishments, 3,853,000 cattle, 2,518,000 sheep and 62,700 pigs.

This plan will be funded with 1 billion pesos in the first year and 500 million pesos in each of the following years.

Equipment

To carry out the plan about 300 automobiles and equipment will have to be acquired in the first year.

The determination of the zone in which to initiate the action has frustrated the producers in these river provinces who tried to free that region in the first place. Technical and practical reasons have indicated that it should start in the south.

BRAZIL

INFECTIOUS ANEMIA KILLS 15,000 HORSES IN MATO GROSSO SINCE 1975

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 29 Jul 77 p 23

[Text] Cuiaba--About 15,000 horses have already died in the lowlands of Mato Grosso since 1975, when a still not fully identified infectious anemia started to afflict the equine herds of that area estimated as 400,000 head, according to Gabriel Muller, president of the Agriculture Federation. The disease reportedly has already afflicted almost all of the lowland herds, and it has also appeared in other areas of Mato Grosso and Rondonia, according to Manoel de Aquino Filho, chief of one of the three emergency laboratories for the control of the disease.

According to Gabriel Muller, "if the anemia is not controlled, the consequences will be disastrous for the economy of the lowlands, which is based on extensive livestock raising in which the horse is a vital element."

FOOT-AND-MOUTH DISEASE UNDER CONTROL IN PORTO ALEGRE

Rio de Janeiro O GLOBO in Portuguese 14 Jul 77 p 22

[Text] Porto Alegre--Although the Ministry of Agriculture considers the present vaccine against foot-and-mouth disease effective, Jose Pedro Gonzales, director of the National Animal Production Department, and Joaquim de Almeida Oliveira, national coordinator of the fight against foot-and-mouth disease, announced yesterday that the Rio Grande do Sul herds will receive a type of vaccine other than the trivalent starting in November.

Jose Pedro Gonzales stated besides that the foot-and-mouth disease situation in the state, which has already caused serious concern among cattlemen because of the confirmed existence of more than 2,000 foci, is stable, and the disease should show indications of a decline in the next few months because its cycle is imperfect.

Under Control

The two representatives of the Ministry of Agriculture, who came to Rio Grande do Sul to discuss the campaign against foot-and-mouth disease on the border with technicians from Uruguay at a meeting which was postponed for 30 days at the request of the Uruguayans, acknowledged that the epidemiologic chart discloses the presence of the disease in some regions of the country, most particularly in Rio Grande do Sul.

But even with an increase in the number of cases, which number 2,400 according to the cattlemen and not more than 1,000 according to the ministry, the technicians considered that the disease is under control at this time and will be completely eliminated in time.

Joaquim de Almeida Oliveira, national coordinator of the Campaign to Combat Foot-and-Mouth Disease, stressed that the current vaccine (trivalent, produced by national and multinational laboratories) was always tested and supervised by the Ministry of Agriculture. Its effectiveness, therefore, normally rates above 75 percent. In the meantime, he considered that even if it leaves the laboratory in perfect condition, the vaccine could spoil before it is used. This can happen because the vaccine cannot withstand freezing, and it can become ineffective at a temperature between 3 and 6 degrees C (as occurs in some places of Rio Grande do Sul).

In the opinion of technician Almeida de Oliveira, the isolated administration of vaccine is not sufficient to do away with foot-and-mouth disease. According to him, a number of precautions are necessary when an animal is afflicted, because the virus multiplies millions of times and undergoes mutations, forming subtypes.

As a solution, he suggested the immediate interdiction of properties affected by foot-and-mouth disease, the control of the movement of animals, and the disinfection of trucks and railroad cars which transport animals.

INDIA

CATTLE EPIDEMIC IN NADIA

Calcutta THE STATESMAN in English 20 Jul 77 p 3

[Text] The West Bengal Minister for Animal Husbandry, Mr Amritendu Mukherji, said in Calcutta on Tuesday that the Government had taken preventive measures following the outbreak of cattle epidemic in some areas of Nadia. Thirty head of cattle are reported to have died in the Nkashipara and Kotwali thana areas.

The disease is known as haemorrhagic septicaemia. The Minister said the Government was inquiring into the epidemic. It is believed the disease might have been carried by cattle purchased at the Hariharchhatra mela in Bihar.

Mr Mukherji said Government veterinary doctors had vaccinated 3,000 head of cattle in the area. Two veterinary aid camps had been set up and two mobile vans pressed into service. The Minister visited the area to inspect the arrangements made for fighting the disease.

MAURITIUS

BRUCELLOSIS OUTBREAK

Port Louis L'EXPRESS in French 22 Jul 77 p 1

[Text] A serious outbreak of brucellosis was reported in Savannah in the last quarter. Veterinarian Robert Heesong of the Mauritian Meat Producers Association [MMPA] tested seven cows and found four contaminated, two doubtful, and one negative. Consequently, the entire herd of about a dozen was destroyed. Other herds of the MMPA will be tested and if findings warrant it a vaccination program will begin. An Agriculture Ministry spokesman referred to four additional brucellosis cases reported last week--two at the Palmar government station--as isolated incidents. Observers believe that brucellosis may have been introduced into Mauritius when cows were imported from New Zealand in 1976.

TURKEY

RABIES QUARANTINE IN ISPARTA

Istanbul AKSAM in Turkish 1 Aug 77 p 5

[Excerpts] Egridir (Isparta)--Egridir district, Isparta province, has recently suffered an invasion of dogs which come from surrounding villages and congregate near the slaughterhouse on Kemer bridge. The situation is so bad that the streets in that area are reportedly unsafe for people at night; relief measures are urgently requested by the inhabitants of Egridir. Despite the fact that this situation is being kept in great secrecy, the villages of Sevincbey, Bademli, Akdelen, and Bagacik have been placed under rabies quarantine. Further, despite measures to keep the rabies outbreak in these four villages from spreading, a shortage of strychnine, used in killing stray dogs, is hindering the efforts of health officials.

URUGUAY

BID LOAN FOR ANIMAL HEALTH ANNOUNCED

Montevideo EL DIA in Spanish 25 Jul 77 p 10

[Text] The loan for Uruguayan animal health now being negotiated with BID will support various projects in the general area of our health efforts, according to statements made to our reporters by the general director for veterinary services of the Agriculture and Fishing Ministry, Dr Luis P. Bartzabal.

It should be noted that Uruguay was one of the few South American countries not to have already made use of this fund of about \$10 million, which includes the technical assistance of the Panamerican Health Organization through its study centers in Buenos Aires and the Aphthous Fever Center in Rio de Janeiro. Thus the Panamerican Health Organization will give permanence to the cooperation it has been engaging in with Uruguay on an ad hoc basis.

Argentina and Brazil already have been granted loans, and Uruguay, with basically one land border with Brazil to deal with, needed to implement its health campaign along with its neighbors, Dr Bartzabal noted.

He added that the loan comes from a special BID operations fund intended for situations like ours where animal health and a definitive increase in world food resources are at issue.

Uruguay will receive the loan now in the planning stages through a period of 5 years, with repayment through a period including 10 years of grace and 30 of repayment at the rate of 2 percent interest.

Bartzabal said that the loan will be quite beneficial to Uruguay because it will allow for four crucial health campaigns by providing necessary infrastructure.

The general director of veterinary services of the Public Health Ministry noted for example that it is impossible to conduct campaigns against brucellosis or tuberculosis if we do not have the strong and prompt aid which a laboratory can offer.

The BID loan would open possibilities for finishing the project begun in 1969 with the acquisition of a property 18 kilometers from Montevideo called the Veterinary Research Campus. This project is still incomplete, and this loan would enable the public health veterinary service to have needed infrastructure in the form of central laboratories.

Also under consideration is the possibility of installing three regional laboratories in Paysandu, Tacuarembó and Treinta y Tres. In this manner the investigation centers would be close to the field and could bring services and rapid diagnosis to the rural scene itself.

VIETNAM

MEASURES FOR PREVENTING, CONTROLLING ANTHRAX OUTLINED

Hanoi NHAN DAN in Vietnamese 14 Jul 77 p 2

[Article by Veterinarian Luu Thoa, Veterinary Department]

[Text] Anthrax is a common contagious disease among mammals such as buffaloes, cattle, horses, pigs, goats, dogs, and cats. The disease can be transmitted to people.

Each year, the epidemics which break out kill many bovines, have an effect on draft power, and cause many people to come down with the disease, some of whom die. In 1976, there were 14 pockets of contagion in 11 districts in Son La, Cao Lang, Ha Son Binh, Ha Tuyen, and Lai Chau provinces, 214 buffaloes, cows, and horses and 59 goats died, and 107 people came down with the disease. Anthrax spores are highly resistant in the environment and can live in the soil 20-30 years and cause the disease to recur every year.

Anthrax epidemics usually break out during March and April and July, August, and September every year.

This is a threat not only to the buffaloes, cattle, and horses in the mountain area provinces but also to the buffaloes, cattle, and horses of the entire country as the result of transporting and providing draft power to the lowlands and provinces in South Vietnam.

The mountain area provinces must strive to limit the number of pockets of contagion so that, from 1979 to 1980, there are no more pockets of contagion.

The old pockets of contagion must be controlled closely, each year the graves of the bovines, horses, and other animals killed by anthrax must be re-enclosed and re-covered, and bovines and horses must not be tended or turned loose near zones where there are graves of dead bovines or horses. Inoculating the bovines and horses in the old pockets of contagion and the threatened regions against anthrax must be promoted. Domestic animals moved from the mountain areas to the lowlands must be inoculated with vaccine and registered according to the regulations of the Ministry of Agriculture. When domestic animals die unexpectedly, they must not be automatically butchered at random but instead the matter must be reported to veterinary cadres who will come to determine things. When an epidemic breaks out, forces must be concentrated on stamping out the pocket of contagion. The Epidemic Control Department must guide carrying out the veterinary statutes thoroughly and apply strict administrative measures as well as the most comprehensive and thorough technical measures. The butchering, buying and selling, and transporting of easily infected domestic animals must be stopped in zones where it has been publicly announced that epidemics exist. Sick animals must be isolated and treated. Dead animals must be burned or buried deep in the ground.

The infected zones must be sanitized and disinfected, and in the pockets of contagion all the products of domestic animals which have died from anthrax, the remaining feed, and the manure of the domestic animals must be collected and burned.

The experiences of Ha Tuyen and Cao Lang show that the mountain area provinces are fully capable of stamping out epidemics in a short time and not allowing epidemics to drag on for a long time and to spread to adjacent regions and create large pockets of contagion.

Burning the carcasses of the animals which have died from anthrax is a technical measure which the conference held by the Ministry of Agriculture in April 1977 to review preventing and controlling anthrax unanimously evaluated as being the most thorough and most economic measure which can limit transmitting and spreading the infection widely and make it possible to avoid the consequences in later years.

As compared with previous years, anthrax has been greatly limited and it now occurs only in a number of mountain area provinces. The mountain areas have great potential for expanding the raising of large domestic

animals but the area is broad, communication and traveling is difficult, and animal husbandry practices still rely on nature, and because of this the prevention and control of epidemics has encountered many complex difficulties.

With the results which have been obtained during the past years and with the experiences which were reviewed during 1976, the mountain area provinces are fully capable of controlling anthrax as are the provinces in the Red River Delta and the Bac Bo midlands.

III. PLANT DISEASES AND INSECT PESTS

BANGLADESH

NEW MALARIA CARRIER

Dacca THE BANGLADESH OBSERVER in English 7 Jul 77 p 1

[Excerpt] Habiganj, 6 Jul--Anopheles Valabacanensis, a species of mosquito abounding in the hilly regions and forest areas of Sylhet District, are found to carry malaria germs, says BSS [Bangladesh Sangbao Sangstha]. Anopheles bengalensis were so long known to be the only carrier of malaria germs. Research conducted at the Malaria Eradication Centres at Nurjahan Tea Estate, Kamalganj Tea Estate and other centres in Sylhet showed that Anopheles Valabacanensis carrying malaria germs are resistant to DDT, a chlorinated hydrocarbon pesticide. But this species is susceptible to Malathion, an organo-phosphoric pesticide.

BRAZIL

POD ROT IN BAHIA CACAO PRODUCING REGION CONFIRMED

Rio de Janeiro O GLOBO in Portuguese 15 Jul 77 p 22

[Text] Salvador--Luciano Liborio, chief of the Salvador office of the Executive Commission for the Cacao Production Plan (CEPLAC), yesterday confirmed the existence of an outbreak of pod rot in the production area of Bahia, adding that CEPLAC is making a survey in order to determine the damage to the crop. In the meantime, he did not deny the reports of the prefects of three producing municipios that the losses represent 50 percent of the yield.

A source from that sector considered the figure excessive, pointing out that it would constitute 900,000 sacks (the main harvest is estimated at 1.8 million sacks).

Luciano Liborio said that the occurrence of the disease in the cacao plantations is rather pronounced in comparison with previous years, when it usually took place only in the areas of the foci. He emphasized that the CEPLAC issued three warnings to producers in February, March and April about the weather conditions this year "which could lead to a bigger outbreak of pod rot."

BEEETLES ATTACK CROPS IN NORTHERN MINAS AREA

Rio de Janeiro O GLOBO in Portuguese 27 Jul 77 p 8

[Text] Montes Claros, Minas--Clouds of round black beetles, called "Idi Amin" by the rural people, are causing difficulty for farmers in northern Minas, destroying crops and pastures, the prefect of the city of Manga, Silvino Pereira Goncalves, announced yesterday.

Besides Manga, the municipios most severely hit in the region are Montalvania and Itacarambi and all the Jaiba Valley which have been invaded by the pests in the last few weeks. The prefect of Manga requested aid from the State Secretary of Agriculture, and experts from the Technical Assistance and Rural Extension Company--Emater-MG, in Montes Claros, suggested holding a meeting between the secretary and farmers to make arrangements for fighting the beetles.

The "Idi Amin" beetle is appearing in northern Minas this year for the first time, just at the same time that hoppers and locusts, until now considered the two greatest enemies of farmers in the region, are disappearing.

LOSS OF BAHIAN COCOA PRODUCTION SET AT 25 PERCENT BECAUSE OF POD ROT

Rio de Janeiro O GLOBO in Portuguese 28 Jul 77 p 24

[Text] Salvador--Production losses of cocoa in Bahia were at most 25 percent, as a result of an outbreak of brown rot which has attacked the plantings in the southern part of the state. That assertion came from Cocoa Affairs Adviser Carlos Pereira Filho, from the Ministry of Industry and Commerce [MIC], who considers recent news being circulated, according to which the damage would reach 50 percent of production, to be an exaggeration. "Losses have never reached that level," he added.

The MIC adviser stated with certainty that production will not be damaged directly, as it should reach 4 million sacks in the next 5 years "while the competing countries in Africa have been lowering production."

It is the first time in history that Brazil has gotten such a high return from cocoa, Pereira Filho said. More than a million sacks have already

been exported, and over 2 million have been sold, which represents, after the remainder is sold, an income of \$800 million in cruzeiros.

In a conversation yesterday with Governor Roberto Santos, Pereira Filho dealt with various subjects concerning cocoa, among them the fight against brown rot and the plans for improving the infrastructure of the cocoa region, such as the construction of the Ilheus-Conquista highway. The adviser was also informed about the campaign to renovate and recuperate planting and the good prospects of the region.

Even though recognizing the scarcity of resources for the eradication of brown rot in the cocoa groves, the MIC adviser emphasized the need for a plan of action to combat the disease "with the greatest effectiveness." It is necessary to attack the disease with a strong offensive until it is eliminated.

CUBA

SUGARCANE PLANT DISEASE CONTROL MEASURES ORDERED

Havana GACETA OFICIAL DE LA REPUBLICA DE CUBA in Spanish 15 Apr 77 pp 31-34

[Text of resolutions]

[Text] Ministry of Agriculture

Resolution No 548-77

Whereas the disease caused by the fungus *Ustilago Scitaminea* Sydow, commonly known as "Sugarcane Smut," has been called one of the most dangerous and destructive diseases that attacks sugarcane fields throughout the world;

Whereas this disease has adversely affected sugarcane fields in more than 30 countries in Africa, Asia and South America and recently has been reported in Guyana, Martinique, Trinidad-Tobago and Jamaica but our country has remained unharmed;

Whereas the fungus *Ustilago Scitaminea* Sydow can be introduced in the country, among other ways, through imports of agamic material for sugarcane propagation (buds, pieces, leaves, etc.) as well as from other gramineous plants or agricultural material from affected areas;

Whereas on 8 January 1975 the Cuban Government ratified the International Plant Health Convention approved by FAO which is applicable to this situation; and

Whereas it corresponds to the Ministry of Agriculture to direct and supervise the application of the plant health legal provisions and it is proper for it to take appropriate and timely measures to prevent the introduction and spread of the mentioned "Sugarcane Smut" in our country;

Therefore, in exercise of the prerogatives and duties that have been conferred upon me in Paragraph c of Article 65 of Law 1323 dated 30 November 1976,

I resolve:

First: To prohibit the introduction into Cuba of any sugarcane genetic material or other gramineous genetic material as well as soil, organic fertilizer or agricultural products from any country where the disease commonly known as "Sugarcane Smut" is present.

Nevertheless, exceptions will be made in cases expressly authorized by the director of the Plant Health Center of the Ministry of Agriculture.

Second: Any organization of the central administration of the state that is interested in importing sugarcane genetic material or any other gramineous genetic material, soil, organic fertilizer or agricultural products to which the preceding section refers for research, experimentation, etc. will have to submit a written request including the exporting country and, in some cases, the country from which that country imported it for prior permission from the director of the Plant Health Center of the Ministry of Agriculture.

Third: The director of the Plant Health Center will approve or deny the request to which the above section refers within 30 days from the day after the request is received at that center.

If the request is denied, the interested party will be notified with no subsequent appeal. If it is approved, the corresponding authorization will contain the conditions for importation.

Fourth: Authorized agamic material for the propagation of sugarcane and grasses can only be imported through the Jose Marti International Airport or through the port of Havana. The organizations authorized to make these imports will have to take the material to the plant quarantine inspectors at these entrance points as soon as it reaches our country.

Fifth: All agamic sugarcane and grass material that, in accord with the above section, is delivered to the plant quarantine inspectors will be taken without delay to the Central Quarantine Laboratory of the Plant Health Center of the Ministry of Agriculture for analysis.

Sixth: The director of the Plant Health Center, based on the results of the analysis by the technicians at the Central Quarantine Laboratory,

will decide whether to send the agamic material to the Sugarcane Quarantine Station in Isla de Pinos or to the Indio Hatuey Experimental Grass and Forage Station to carry out the specified quarantine measures.

The agamic materials mentioned in the above paragraph that are received at the two stations mentioned will remain under quarantined observation for a minimum of 24 months.

Seventh: Once the period of quarantine is over, it will be necessary to obtain the corresponding "Free Passage" certificate from the duly authorized plant quarantine directors or officials to transport, plant or use that material.

Eighth: Agamic material for the propagation of sugarcane and grasses brought into Cuba without authorization according to the second section of this resolution will be confiscated by the plant quarantine inspectors of the Plant Health Center of the Ministry of Agriculture who will immediately report it to the police or prosecutor where the infraction is committed based on Articles 560.21 and following of the Social Defense Code.

Ninth: The director of the Plant Health Center of this ministry is delegated the prerogatives and powers to take whatever measures are necessary for the application, execution and fulfillment of this resolution.

Tenth: All provisions contrary to the present resolution are repealed.

Eleventh: The Legal Office will promulgate this resolution, giving certified copies to the Ministry of Foreign Relations in conformity with the provisions of the International Plant Health Convention, to the Plant Health Center, offices, branches of this ministry and to as many businesses as appropriate.

Twelfth: Let this be published in the GACETA OFICIAL DE LA REPUBLICA for public notice.

Issued at the Ministry of Agriculture in Havana on 12 April 1977.

[Signed] Rafael Francia Mestre, minister of agriculture

Resolution No 549-77

Whereas the disease caused by the fungus *Ustilago Scitaminea* Sydow, commonly known as "Sugarcane Smut," has been called one of the most dangerous and destructive diseases that attacks sugarcane fields throughout the world;

Whereas the mentioned disease has infected a considerable number of sugarcane fields in more than 30 countries in Africa, Asia and South America

and more recently in Guyana, Martinique, Trinidad-Tobago and Jamaica but our country has remained unharmed in spite of the different forms of dissemination that facilitate its introduction into any territory; and

Whereas because of the above, it is advisable and necessary to adopt measures to avoid the introduction of the disease into national territory and, if it enters, to facilitate the most rapid localization and control of the disease;

Therefore, in the exercise of the prerogatives that have been specially conferred upon me in Paragraph c of Article 65 of the Law of Organization of the Central Administration of the State,

I resolve:

First: To establish for preventive reasons a sanitary cordon south of the central and eastern regions of the country to permit the most rapid localization and control of the disease commonly known as "Sugarcane Smut" if it enters national territory.

The following towns will form this sanitary cordon:

- a) In Cienfuegos Province--Cienfuegos, Abreus and Cumanayagua;
- b) In Sancti Spiritus Province--Sancti Spiritus, Trinidad and Sierpe;
- c) In Ciego de Avila Province--Baragua, Majagua and Venezuela;
- ch) In Camaguey Province--Santa Cruz del Sur, Florida and Vertientes;
- d) In Las Tunas Province--Amancio, Colombia and Jobado;
- e) In Granma Province--Campechuela, Manzanillo, Niquero, Bartolome Maso, Buey Arriba, Media Luna, Pilon, Rio Cauto and Yara;
- f) In Santiago de Cuba Province--Santiago de Cuba and Tercer Frente; and
- g) In Guantanamo Province--Imias, Niceto Perez, Caimanera, Maisi, Manuel Tames and San Antonio del Sur.

Second: All the sugarcane and pasture areas in the towns included within the sanitary cordon will be subject to the strictest health control.

Third: All movement of sugarcane, its parts or grasses in the towns included in the first section or between these towns and other towns in the country is prohibited except in the following cases:

- a) When it is necessary to transport the sugarcane surplus from one of these towns to another town for processing at another sugar enterprise; and

b) When the towns do not have a sugar enterprise to process the cane.

In both cases the cane will be transported to the nearest town to be processed when possible.

Fourth: All movement of sugarcane included in the exceptions in the above section will be done after sight inspection by the cane technicians at the provincial or municipal level in coordination with the quarantine and plant health technicians before cutting the cane that must be transported.

Fifth: The cane and pasture technicians in cooperation with the quarantine and plant health technicians at the respective levels will make quarterly inspections of the cane and pasture areas within the sanitary cordon with the objective of detecting the appearance of the disease commonly known as "Sugarcane Smut" in case it has entered our country.

Sixth: If there is suspicion or if the disease has been detected, this will be immediately reported to the provincial or municipal level of the Plant Health Center of the Ministry of Agriculture and movement of any part of the plants from that area will be absolutely prohibited until the quarantine technicians of the Plant Health Center determine the measures to be taken.

Seventh: All movement of cane or grass seed even within the same town must be done under a plant health "Free Passage" certificate issued by the appropriate Plant Health Center officials.

Eighth: The introduction into Cuba of any clothing or material that has been used in visits to cane fields in those countries infected by the mentioned disease is prohibited.

Ninth: The organizations, branches of the state and all citizens are obliged to comply with this resolution and to cooperate to attain its objectives.

Tenth: Violations of this resolution will be immediately reported to the police or prosecutor based on Articles 560.21 and following of the Social Defense Code.

Eleventh: The director of the Plant Health Center of this ministry is delegated the prerogatives and powers to take whatever measures are necessary for the application, execution and fulfillment of this resolution.

Twelfth: All provisions contrary to the present resolution are repealed.

Thirteenth: The Legal Office will promulgate this resolution, giving certified copies to the Ministry of Foreign Relations in conformity with

the provisions of the International Plant Health Convention, to the Plant Health Center, offices, branches of this ministry and to as many businesses as appropriate.

Fourteenth: Let it be published in the GACETA OFICIAL DE LA REPUBLICA for public notice.

Issued at the Ministry of Agriculture in Havana on 12 April 1977.

[Signed] Rafael Francia Mestre, minister of agriculture.

CSO: 5400

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