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WORLD EPIDEMIOLOGY REVIEW

No. 89

This serial publication, based on worldwide press and radio reports, contains information on the epidemiology of human, animal, and plant diseases. Disease incidence, reported outbreaks, and various related epidemiological factors are included. Items are presented by country of occurrence rather than by country of original press report.

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I. WORLDWIDE REPORTS ON CHOLERA OUTBREAK

INTERNATIONAL

POSSIBLE CHOLERA IN TANZANIA, MARBURG DISEASE IN KENYA

Johannesburg THE STAR in English 15 Nov 77 p 2

[Text] Nairobi--Fears that southern Tanzania may be gripped by a cholera epidemic and that Kenya, without knowing it, may have just gone through an outbreak of the deadly Marburg or green monkey disease are being voiced by health authorities here.

In Tanzania, four districts, Rufiji, Kilwa, Mafia and Moshi have been placed under quarantine because of what the Tanzanian Government claims is an outbreak of "dysentery."

So far, the "dysentery" has killed 56 people.

A further 934 have been treated during the past two weeks.

The Tanzania Government news agency, Shihata, has disclosed that the disease was brought into the country by a visitor from Saudi Arabia who died a few days later.

Riddle

Saudi Arabia is one of the several Middle East countries in which cases of cholera have been reported recently. Yesterday there were unconfirmed reports that the disease had spread to Dar es Salaam.

In Kenya's remote north-western region which borders Uganda and the Sudan, hundreds of people have been stricken with a mystery disease. More than two thousand have been treated with penicillin.

Medical officers say the disease came suddenly with fever, chills, headaches, very severe muscular and joint pains, diarrhoea, vomiting and internal bleeding--all symptoms of Marburg disease.

Kenyan health authorities say that the virus, which has occurred only among nomadic people, runs a less protracted course than in the Sudan and Zaire outbreaks of last year and responds to penicillin.

GILBERT ISLANDS

CHOLERA OUTBREAK

Sydney THE SYDNEY MORNING HERALD in English 26 Sep 77 p 9

[Text] Auckland, Sunday--There have now been 17 cholera deaths in the Gilbert Islands, Colonel Brian Lineham, the leader of a New Zealand medical team, said on his return from the islands today.

Colonel Lineham, who led a team of 12 nurses and doctors, said the island of Tarawa was getting a new sewerage system and the water supply was being treated. He thought another outbreak as unlikely.

MALAYSIA

CHOLERA OUTBREAK CONTINUES

Kuala Belait BORNEO BULLETIN in English 10 Sep 77 p 32

[Text] Kuching--A one-year-old girl has become the latest victim--the sixth death--of the cholera epidemic.

Suriani binte Kipli, from Kampung Abang Ali, died in the Binatang Hospital five hours after being admitted on Friday last week.

An earlier victim was also from the Binatang area. Three others came from the Bintulu District, where the outbreak started on April 21, and the other one was from the Mukah District.

In terms of fatalities, this year's epidemic is worse than the long-running one of last year. Then there were three deaths, and 165 cholera cases in all.

The number of cases in the current wave is almost the same--by the start of this week the figure had reached 159.

But there is some consolation in the fact that there had only been a few new cases in the week before.

The Medical Department's vaccination teams have been doing an effective job in giving anti-cholera shots to the public--more than 286,000 people have been vaccinated.

Meanwhile, rumours that the epidemic has caused the shutdown of some schools have been firmly squashed by the authorities.

There have been no closures, said Dr Tan Yaw Kwong, director of the Medical and Health Department, with confirmation also coming from the Education Department.

Irresponsible rumours spread in the Third, Sixth and Seventh Divisions that it was dangerous to be vaccinated.

Medical officials, District Office representatives, and leaders of the Chinese Chamber of Commerce in Sibuluan and Binatang, where the rumours were more widely spread, dismissed this as nonsense and have appealed to the public not to listen to such rumours.

The Binatang District Officer called a meeting of police, army, and community leaders, plus school headmasters, to explain the situation.

Binatang medical officials said they had not been sending teams to give vaccinations at schools--but they had been going to infected kampungs to treat everybody there.

They have emphasised that nobody is forced to be vaccinated. But it is in everybody's interest to accept this protection against the disease.

Kuala Lumpur NEW STRAITS TIMES in English 11 Sep 77 p 9

[Text] Sat.--The Ministry of Health has declared the Kota Kinabalu district a cholera-affected area following the confirmation of two cases here.

Sabah's Director of Medical Services, Dr. Mechiel Chan, said the first case was from Kampung Air and the other from Sembulan Lama.

Both victims are recovering at the St. Elizabeth Hospital here.

Dr. Chan said measures had been taken to control the spread of the disease. He advised the people to drink only boiled water and seek medical treatment if they were suffering from diarrhoea.

A high standard of personal hygiene was one of the most effective ways to prevent the disease, he added.

In Kuching, a spokesman for the State Medical Department said the cholera situation in Sarawak is expected to further improve with the coming wet season.

A spokesman said only five cases were confirmed since the beginning of this month compared with 28 for the same period last month.

He said no new case was reported during the past three days.

So far 160 cases of cholera had been confirmed in the state including six deaths since the outbreak last April.

Meanwhile, the department's vaccination team is still carrying out an anti-cholera campaign throughout the state.

He said 297,504 people have been vaccinated.--BERNAMA.

Kuala Belait BORNEO BULLETIN in English 17 Sep 77 p 32

[Article by K. C. Jong]

[Text] Kuching--Unless the people of Sarawak, especially those of the ulu, change their style of living, the state will continue to have cholera epidemics.

The warning comes from Dr Tan Yaw Kwong, director of the Sarawak Medical and Health Department, as the current outbreak continues--an epidemic that is more serious and more widespread than the worrying one of 1976.

Foremost in prevention of the disease is the oft-mentioned need for personal hygiene--the careful washing of hands before taking food, and after going to the toilet.

People should also ensure that they only eat cooked food and drink boiled water.

These precautions are particularly essential during periods of dry weather, for this is when the epidemics occur. And because rivers are low, and water in short supply, people tend to become lax about their personal hygiene.

During the past three months there have been dry conditions in the Third and Fourth Divisions. Rivers became infected with cholera germs as a result.

The disease started in April in Kampung Jepak, in the Bintulu District--a kampung which has a stream flowing through it.

It has been established that the stream had been infected with cholera germs. And many people used the water.

Thus the disease spread through personal contact, and to other river valleys such as Mukah, Oya, Dalat and the Rajang in the Third and Sixth Divisions, by people who had earlier visited the infected district.

This has been the first time for many years that cholera has broken out in Bintulu and spread.

In talking about the need for personal hygiene, the director cites examples of how this can work. The department's efforts to educate the people in the First and Second Divisions on the prevention of the disease have paid good dividends this year.

They have only had a few cases, while last year they were numerous after the outbreak began in Simanggang. It spread, lasted five months and 19 days and had 177 cases in all, with three deaths.

Another incident mentioned by Dr Tan is how he personally examined a suspected cholera case (subsequently confirmed) at Dalat dispensary in July. Both he, and his staff, took all the necessary hygiene precautions with themselves after direct contact with the patient.

They did not catch the disease, and this proves the solid fact that personal hygiene is very important in preventing the disease.

The number of cholera cases in Sarawak from the present epidemic has topped the 160 mark--and trouble with the disease has also been reported from Sabah. Late last week the Sabah Medical Department reported a case at Kampung Ayer, Kota Kinabalu, when a month-old Filipino baby was admitted to hospital.

Kuala Lumpur NEW STRAITS TIMES in English 19 Sep 77 p 7

[Text] Kedah health authorities are still trying to establish the source of the outbreak of cholera here which claimed one life yesterday.

The victim, a 63-year-old man, died in the General Hospital 11 days after he was admitted with the illness.

State Director of Medical Services Dr. R. G. Pillai said today health authorities were puzzled as there was no cholera outbreak in Peninsular Malaysia generally.

The three carriers of cholera admitted to the hospital here last week for observation have been found to be not affected by the illness although they had cholera germs.

Dr. Pillai said the carriers, including the widow of the victim, and their six-year-old nephew would be discharged from the hospital in a few days. The other carrier is a 28-year-old man. They are in a special ward.

Dr. Pillai said the victim and the carriers lived in Toh Tong, an isolated kampung near the coastal village of Kuala Kedah.

The entire Kota Star district has been declared a cholera infected area to facilitate an anti-cholera campaign.

Fourteen contacts living in two houses close to the victim's house have been inoculated. A total of 18 wells in the area were chlorinated.

Dr. Pillai advised the public to drink only boiled water and to eat only cooked food. He said the people should also adhere strictly to personal hygiene.

Kuala Belait BORNEO BULLETIN in English 24 Sep 77 p 28

[Text] As cholera begins to take some hold in Sabah, there is a sign that Sarawak's epidemic may at last be on the wane.

Early this week Sarawak had recorded 167 cases in the five-month epidemic, but the encouraging pointer was only three new cases reported over the week before.

Two were at Kampung Penat, in the Mukah District, and the other at Kampung Baro, Kuala Igan, near Sibul.

Medical officials continue to maintain a full alert, and their anti-cholera vaccinations--about 300,000 people have had injections.

They have also warned the public not to go to certain kampungs in the Second, Third and Sixth Divisions because they could be infected from cholera patients having visited or passed through them.

The settlements are: Rumah Umar, at Sungai Dabai, Roban: kampung Bon in Oya town; Rumah Nanta, Rumah Tunggu, Kampung Abang Ali and Kampung Abang Amin in Binatang; Rumah Belikan Loba Daun in Paloh, near Sarikei; Rumah Bujang in Nanga Nyalak, Pakan, Julau District.

Sabah has had cholera since early in the month, with six cases now reported, the first from Kampung Air in Kota Kinabalu and the others since at Kampung Lungkahan, Penampang (two), Kampung Sembulan, Kampung Sembulan Tengah and the Beaufort District.

A carrier of the disease was also found from Kampung Sembulan Lama.

Kuala Lumpur Domestic Service in English 1130 GMT 18 Nov 77 BK

[Text] Four new cases of cholera were confirmed in Sarawak during the past week, bringing the total to 241 since the outbreak of the disease in April this year. The death toll remains at nine.

PHILIPPINES

SEVEN CHOLERA DEATHS, FOURTEEN HOSPITALIZED

Kuala Lumpur NEW STRAITS TIMES in English 19 Sep 77 p 3

[Text] At least seven people have died of cholera in the northern Philippines and 14 others are in hospital suspected of having the disease.

The deaths were announced today by the National Disaster Centre which also said that 14 people died as a result of typhoon Dinah, now heading away from the northern Philippines after creating havoc over the past two days.

The cholera victims died on Thursday in the rugged mountain province of Benguet, 130 miles (210 km) north of here.

Although cholera is endemic in the Philippines, the latest death reports are unusual.

The deaths came just as the Health Department was issuing new instructions to prevent the current Middle East cholera epidemic spreading to the Philippines.

Apart from the Benguet cholera victims, at least a dozen people have been confirmed in Manila as cholera suspects, but this figure is not regarded as alarming.

More than 1,000 families were reported homeless as a result of typhoon Dinah, which flooded areas of six northern provinces and caused thousands of dollars worth of damage to crops, roads and property.

The typhoon was the 13th serious weather disturbance this year to hit the Philippines, which is swept by 19 typhoons on the average annually.--REUTER.

WHO OFFICIAL DISCUSSES CHOLERA OUTBREAKS, PHILIPPINE PROGRAM

Kuala Lumpur BUSINESS TIMES in English 22 Sep 77 p 11

[Article by William C. Mann]

[Text] Cholera is endemic to many countries that refuse for political reasons to admit it, a World Health Organisation expert said recently.

And because cholera has the stigma of the unclean, health officials in a newly infected country almost always scramble to find the disease's source outside their borders, said Dr Reinhard Lindner.

Dr Lindner, regional adviser on communicable diseases, said the problem is compounded for disease detectives by science's inability always to determine whether cholera occurs naturally or is imported.

Not that it really matters, he said.

"Emotions are still too high and knowledge too little to have a rational approach to this problem," Dr Lindner said.

"We need to get less hysterical about this disease, to do the nitty-gritty work of improving sanitation. Of course that's easily said but much more difficult to do, because you're talking about big money here."

The U.N. Agency's figures show that 21,999 cholera cases were reported from January 1-August 19, 1977, 93 per cent of them in Asia. There were 990 deaths, more than half in Indonesia. Cholera is officially endemic there, as it is in Bangladesh, Burma, India and the Philippines.

Outbreaks

But Dr Lindner said recent cholera cases, including brand new outbreaks in Syria and Jordan, indicate other nations could be added to the list.

Health Minister Mr Abdul Rauf Rawabdeh of Jordan said 21 cholera cases had occurred in Palestinian refugee camps, brought there from "a neighbouring country." Health officials in neighbouring Syria reported in late August at least 780 cholera cases, causing more than 30 deaths.

"It is new in Syria, new in Jordan, so these two countries have this year made expansions in the (cholera) problem," Dr Lindner said in an interview. "We don't presume that they had it all the time, but there's no way of knowing that.

"Malaysia, Singapore, Vietnam, even Australia and Japan: I expect that in any of these countries cholera is endemic. But they wouldn't want to admit it because of the hysteria about the disease."

Dr Lindner said cholera occurs even in such developed countries as those of Western Europe, Canada and the United States. In 1973 a person in Texas contracted cholera, and no source was found. A traveller from the Philippines came down with the disease in Hawaii this summer. Two unexplained cases have sprung up in Australia this year, and the Soviet Union and Canada each have reported an imported case.

Sanitation

"When it happens where there is good sanitation, health officials just isolate the case and take care of it," Dr Lindner said. "It's very expensive business to undertake a search to find where the disease came from.

"It's better to accept that you will get imports."

Once it was a scourge that caused a high percentage of deaths through dehydration of its victims. But Dr Lindner said epidemiologists now consider cholera little more than a very severe form of diaorrhoea. It can be controlled with proper sanitation and nutrition, he said, yet some countries still suffer a 10 per cent cholera mortality rate.

Others, like the Philippines at 3 per cent, keep the disease's death rate within what Dr Lindner called the "acceptable" range of 1-3 per cent. Vaccinations for incoming travellers is unnecessary and it does not impose travel and trade restriction on a country that is thought to be a source of cholera.

"There is no rational way of defending such restrictions," Dr Lindner said.

One example of the harm they do, he said, was a mid-summer outbreak of cholera in Arida, Japan, which some Japanese provincial officials said was brought into the country from the Philippines. Thousands of Japanese tourists cancelled plans to come here on holiday, and export of some food-stuffs, notably bananas, was stopped.

"We checked to see how long the cholera bacteria will survive on a banana," Dr Lindner said. "We found that it would have been gone by the time a shipment of bananas reached Japan, even if there had been any there to begin with."

Research shows the bacteria can live a maximum of five days on a refrigerated banana, two days less than is required to get bananas from trees in the Philippines to a Japanese household's table.

Eradicated

Sanitation remains the best means to combat cholera, but Dr Lindner's agency and the Philippine Government currently are testing a process in the central island of Negros that gives hope for improving treatment.

In seven villages around the city of Bacolod, untrained social workers are distributing at 70 centavoes--US10 cents--a packet packages of a glucose-salt solution. Mixed with drinking water and fed to children, the solution seems to improve nutrition of diaorrhea victims, giving them the ability to fight off disease, Dr Lindner said. It also entices the body to retain water to fight off dehydration, the cholera killer.

The programme is almost a year old, and WHO will evaluate its results after 12 months to see if the findings bear out earlier indications, he said.

But Dr Lindner said it's uncertain that cholera ever can be eradicated. He pointed to Singapore, the island nation of 4 million persons south of Malaysia, as an example:

"Its programme is very good. From time to time they may find a single case. They immediately pinpoint the carrier, a hawker, say, who's selling food without washing his hands. The government goes to him, educates him in the importance of sanitation, and another potential carrier is eliminated. It's a very disciplined society, and if Singapore can't eradicate the disease, nobody can."

Yet WHO statistics show that three cases have been reported in Singapore this year. The cases appeared unrelated, and the original sources never have been found.--AP.

QATAR

HEALTH OFFICIAL ASSERTS COUNTRY IS FREE OF CHOLERA

Doha AL-'ARAB in Arabic 27 Sep 77 pp 4-5

[Interview with Dr Sayyid Ahmad Taj-al-Din, the director of preventive medicine in the State of Qatar, by Muhammad Sa'd al-'Awadi]

[Excerpts] The news of cholera and of the victims of this epidemic which appeared a few weeks ago in various parts of the Arab world is spreading day after day. Although it is true that the cholera microbe is the weakest of microbes and that dealing with it through prevention is more successful than treating it with drugs, and although it has been proven that prevention consists of cleanliness--personal hygiene and environmental hygiene--yet the spread of cholera is most like the spread of fire in dry grass. This is why countries and their health agencies are always on the alert and why strict measures are taken to protect people's lives and to insure their safety by confining the epidemic, curtailing it and then wiping it out.

AL-'ARAB went to Dr Sayyid Ahmad Taj-al-Din, the director of preventive medicine in the State of Qatar, to find out from him the picture of the situation in Qatar, out of its eagerness to prevent the spread of confusion and its concern for the people's lives and out of its desire to acquaint the people with the truth, either through reports or reportage--with reports so that we may know whether there are any cases and to learn about the situation in the State of Qatar and with reportage to learn about the means to protect the people's lives, to provide them with guidance and to give them a picture of the measures taken so far.

The following interview is an attempt on the part of AL-'ARAB to find the truth--the truth of the measures taken and the truth about this weak, and yet potent and accursed, microbe.

No Cholera in Qatar

In the first meeting with Dr Sayyid Ahmad Taj-al-Din--a meeting for which I had to go through the crowds of people frequenting his office and carrying health papers and certificates and inquiring mostly about vaccination and prevention, an effort after which I found myself face to face with the director of preventive medicine to ask him the first and most important question:

[Question] Have any cholera cases appeared in Qatar?

[Answer] (Dr Taj-al-Din said emphatically) There are absolutely no cholera cases in the State of Qatar and there haven't even been any suspect cases.

[Question] Can we know the first Arab country in which cholera appeared?

[Answer] Syria was the first country in which the communicable microbe appeared a few weeks ago. The only vector for this disease is man, and man alone, because he is the only vehicle that carries the microbe in his intestines and spreads it through his secretions. With environmental pollution and with the lack of preparedness on the part of man to protect himself against infection--either because of his personal condition or because of environmental conditions--the epidemic spreads to others.

The best proof that the disease can be contained is what happens in some European countries--e.g., in London--where the microbe carrier is isolated and treated as soon as he is identified and thus the problem is brought to an end. The isolation period is equal to the microbe's incubation period, namely 5 days only.

What Has Been Done Locally?

[Question] Naturally, there are strict measures and precautions to prevent the epidemic from breaking through the Qatari borders either by

passengers coming into the country or citizens going into and returning from countries where the disease has appeared. What has been done and what is being done in this respect?

[Answer] Naturally, we adopted strict and immediate measures:

Insofar as the airport is concerned, we have adopted all the necessary measures, keeping particularly in mind that we are in the season when teachers and summer vacationers return to the country. Strict measures have been taken for arrivals from Syria, Jordan and Lebanon for whom we have set up a health quarantine with full observation of the returnees.

Insofar as the overland road is concerned, we have set up a strict check-point at Abu Samrah, on the Saudi borders, to check the health condition of arrivals.

[Question] Can you tell us what is done insofar as returnees and people arriving on a visit to the country are concerned, in view of the fact that some people have asked many questions when in recent days their passports were taken away from them immediately on their arrival?

[Answer] First, we vaccinate arrivals and if they don't take the vaccine they have to take four tetracycline capsules at once. This is for the grownups. As for children, we give them a special liquid which kills the disease microbes if they have them in their intestines.

As for passports, we take them away from the persons concerned and instead we give them special cards to insure that they later bring stool specimens to be sent to the laboratory for analysis. We lay special stress in this respect with regard to those arriving from Syria, Jordan and Lebanon. The citizens must cooperate with us strongly so that we may be able to perform our duty and to serve them and the homeland out of concern for the public interest and out of eagerness to wipe out this communicable disease as soon as possible.

This is insofar as the role of the direct preventive health in the country is concerned.

There is another role performed by the Preventive Health Administration in cooperation with other authorities, such as the municipal food inspection section which keeps a close eye on foodstuffs and which inspects food and drinking places. We advise people not to eat foods in the market, regardless of how clean such foods are.

There is also the preventive health role concerned with vaccination, observation and inspection of restaurant owners and workers in hotels and public drinking places out of our eagerness to keep them in top health condition because they are the first factor in exposure of others to danger under these difficult circumstances through which the Arab world and the rest of the world are going.

Despite this, we advise the citizens not to eat any foods in the market at present because we cannot insure complete cleanliness and full safety on the part of Indian and Iranian owners of [food] places. We advise citizens not to eat in the market until the crisis passes peacefully.

Most Important Problems

[Question] Are there any problems regarding the strict measures applied to fight the cholera epidemic?

[Answer] The most important problem in fighting this disease is the follow up concerning the disease itself and concerning the patient. This is not done and cannot be done easily in a country like Qatar because until now there are no [home] addresses, street names or residential numbers in the country. This is a difficult problem. For example, when you ask a returnee what is your address he may answer: Furayj ibn 'Imran [quarter]. Where, which street and what number? No answer. The returnee may also answer: Umm Ghuwayliyah or behind the Wolks circle. Such a man is excused because he gives you the most outstanding landmark of the quarter in which he resides. However, he knows no number for himself, for his house or for his apartment and knows no address either. This is a problem that causes us a lot of confusion. This is why we try to take the passports so that their owners are forced to return with the required sample in order to get back their passports. We do this out of our eagerness to get the samples and to have them analyzed in the laboratory in order to make sure that the people concerned are safe.

Qatar and the Arab Role

[Question] What you have said so far concerns the domestic role in Qatar. Keeping in mind that the epidemic is at the level of the entire Arab homeland, what is Qatar's role within the framework of the concerted efforts to wipe out the epidemic?

[Answer] At the Arab level, there have been successive press and wire service reports about the meetings of the Arab ministers of health to find out the quickest and most successful means to eliminate this disease so that it may not spread and may not break through the health cordon set up around it.

This is what is currently being done at Cairo in the wake of the call by Dr 'Abd-al-Rahman al-'Awadi, the Kuwaiti minister of health, for the convocation of a meeting by the Arab ministers of health to discuss this matter. Before this, the State of Qatar participated in the special meeting of the General Secretariat of the Arab Gulf States to draw up recommendations with respect to preventing the spread of cholera in the Gulf area. This meeting was held in Bahrain this month.

The meeting was held at the request of the State of Qatar. In accordance with this request, the Health General Secretariat of the Arab Gulf States

called for a meeting to discuss the presence of cholera in some of the area's countries and in neighboring areas and to adopt common measures to curtail and fight the spread of the disease. Dr 'Abd-al-Wahhab al-Muhaydib from the United Arab Emirates, Dr B. Mathews on behalf of the State of Bahrain, Dr Jalal Muhammad Ash on behalf of Saudi Arabia and in his capacity as the secretary general, Dr Sa'dun al-Tikriti from the Republic of Iraq, Dr Ahmad 'Abd-al-Qadir Ghassani from the Sultanate of Oman, Dr 'Umar Hashishu and 'Abd-al-Wahid al-Mawlawi from the State of Qatar and Dr Nuri al-Kazimi and Dr Ja'far 'Izzat from the State of Kuwait attended the meeting.

After reviewing the general situation in each country and reviewing and discussing the measures adopted in these countries, the following recommendations were taken:

When any cholera case is discovered in any Arab Gulf state, the General Secretariat of the Arab Gulf States, the other Gulf states and the World Health Organization should be informed.

Should any of the Arab Gulf states become aware of the presence of cholera cases in any country besides those in the secretariat, it should inform the General Secretariat of the fact so that it may adopt the necessary measures.

As for those coming from infected areas, it is recommended that they be given an observation card so that they may check with any health center. Arrivals should also be given such cards when they display symptoms of sickness in the digestive system, such as diarrhea and vomiting.

As for the measures adopted in regard to foodstuffs brought by passengers, automatically canned and tightly sealed foodstuffs may be allowed to enter the country. Other foodstuffs should be banned, except for fruits and vegetables which may be permitted into the country with instructions that such items be washed before consumption.

As for the measures adopted in regard to foodstuffs imported from infected areas:

The entry of all dairy and fish derivatives and all fresh and salted sea foods that are not canned should be totally banned.

Automatically canned and tightly sealed foodstuffs may be allowed into a country, but not fish and dairy products.

Vegetables, fruits and other produce may be permitted to enter.

Insofar as internal measures are concerned:

Considering that the duration of the collective vaccination is short and that the immunity that vaccination produces does not reach the level of

full protection, in addition to the side effects, the difficulty of the follow-up, the laxity of people in taking precautions after they get vaccinated and the wasted human efforts, it is recommended that collective vaccination campaigns be avoided and that attention be given to the other protective measures.

Attention should be paid to all diarrhea cases and all necessary tests should be made in such cases to make sure of their type before antibiotics are given.

Attention should be paid to environmental health in cooperation with the other authorities concerned.

Attention should be paid to spreading health education among the citizens by the health agency through the use of the information media and through coordination among the area's countries.

It is also recommended that medical scholarships include scholarships for physicians in the field of preventive medicine.

[Question] What are the diseases with symptoms similar to that of cholera?

[Answer] Not every form of diarrhea or vomiting is a case of cholera. Similar symptoms occur in cases of food poisoning, dysentery, paratyphoid and intestinal infections, all of which are very common diseases, especially in the summer months when foods spoil quickly due to high temperatures.

Microbiological tests are the only means to differentiate between these diseases.

Protection Measures at Level of Country

The readiness of the hospitals to receive and treat suspected cases.

Putting the laboratory on full alert to analyze all cases of diarrhea.

Control over food catering places, destroying suspect foods and drinks and watching vendors and workers in hotels, in soft drink plants and in dairy foods.

Increasing the level of chlorine in drinking water and collecting samples from various parts of the city in order to test the chlorine level in them.

Control of arrivals from infected areas at the ports, airports and border areas, analyzing their feces and giving them tetracycline capsules before they enter the country.

Enlightenment campaign through all the information media.

Voluntary vaccination of the citizens.

SULTANATE OF OMAN

COUNTRY SAID COMPLETELY FREE OF CHOLERA

Muscat 'UMAN in Arabic 10 Sep 77 p 2

[Interview with Dr Mubarak al-Khaduri, the minister of health, by Muhammad Najl]

[Text] Cholera is coming to the Middle East. Several countries have discovered the presence of cholera cases--Syria, Jordan, Iraq and some Gulf countries. The World Health Organization issued strong warnings a few days ago and since then work has been going on at a feverish pace in the agencies of the Oman Ministry of Health and in the therapeutic and preventive establishments under its control. The hospitals are in a state of alert and the quarantine centers are on the ready. Dr Mubarak al-Khaduri, the minister of health, declared the country free of any case of cholera since the beginning. His highness said that the sultanate is completely free of cholera and emphasized that the ministry continues to take the regular anticholera measures to prevent the infiltration of the disease to the country.

'UMAN has participated in this mobilization process and has shouldered its full responsibility as an information medium. In this respect, we have conducted interviews with his excellency the minister of health and with the director of public health. We also conducted a tour of the Ministry of Health laboratories in order to acquaint ourselves on the spot with the measures being adopted by the ministry to prevent the infiltration of this disease or any other disease to the sultanate's territories.

At the outset, we had a short meeting with Dr Mubarak al-Khaduri, the minister of health, at his office in the ministry.

[Question] There have been repeated reports about the presence of cholera cases in a number of Arab countries, especially Syria, Jordan and Kuwait. What about the health situation in the sultanate and what are your measures in this respect?

[Answer] First, I would like to assure you and all the citizens that the sultanate is completely free of cholera. No case of cholera has been discovered in the country since 1974. We take constant precautions to prevent the occurrence of cholera in the sultanate. These precautions are a part of many other measures intended to prevent the infiltration of communicable diseases to the country and to prevent the spread of epidemics. Precautions against cholera take many forms, the most important being the comprehensive periodic immunization that the ministry has been giving the citizens every 6 months for the past 3 years. There is also strict health

control over the foodstuffs, the fruits and the vegetables entering the Omani territories and supplied to the market for sale to consumers. These items are checked closely by the ministry's laboratories in order to make sure that they are free of diseases and to insure that they are fit for human consumption.

The minister also said: We have been able in the past years to make sure that the sultanate is free of endemic diseases, especially cholera. However, precautions continue to be taken ceaselessly.

The minister of health added that it is worth noting that the sultanate was exposed last June to a severe and destructive typhoon. However, the alertness of the ministry's agencies prevented, thanks to God, the spread of any epidemic. Thanks to the citizens' cooperation with the health agencies, we were able to surmount that stage of danger to public health without allowing the country to be exposed to any health danger.

[Question] What are the precautions followed for protection against cholera?

[Answer] Periodic tests are conducted on the water resources, as I have already pointed out [sic]. Wells, water springs, the sources of potable water, the water wells in the agricultural areas and the water reservoirs belonging to public establishments, such as schools, factories, ministries and government departments, are constantly treated [with chlorine].

As for the chlorine that we use in treating water, it is produced locally. For example, 120,000 liters of chlorine were produced this year for use in this regard.

Water samples are also collected from various parts of the sultanate and are tested by the Ministry of Health to make sure that they are fit for human consumption and use.

Moreover, specimens of the foodstuffs imported to the sultanate are subjected to tests in the chemical and bacteriological laboratories to make sure that they are fit for consumption. Spoiled foods and foods suspected of containing disease germs are destroyed. He also said: There is a committee to supervise the food tests. The committee consists of [representatives of] the ministries of health, agriculture, trade and industry and the police department, the customs authority, the port and airport authorities and the chamber of commerce.

[He added] We also have other sections that participate in this sphere, including the Public Health Section which was set up 2 years ago and which is in charge of the disposal of public wastes, and the Insect Control Section. These two sections work in cooperation with the capital's municipality and with the authorities concerned in the Ministry of Communications, such as the Water Directorate and the Housing Department and other authorities, to realize the public interest.

The minister also referred to the role of the Health Education Section in spreading health awareness among the Omani citizens and in acquainting them with communicable diseases and the means of protection against them through the various information media, such as newspapers, radio, television and various kinds of posters. His excellency the minister of health also pointed out that periodic checks are made on commercial places in cooperation with the capital's municipality. Special attention is paid in this regard to restaurants and bakeries.

The ministry also examines all the tanker trucks used for transporting water to make sure that they are safe and fit for this purpose and that they do not cause the water to be contaminated. More than 170 water truck tankers were examined and disinfected in the past 6 months.

As for vaccination against this disease, the minister said that cholera vaccination is given periodically every 6 months, in April and October every year, and that the vaccination campaigns cover most areas of the sultanate. A total of 150,000 persons were vaccinated against this disease last year.

The minister also added that all the hospitals, clinics and health centers in the sultanate have been supplied with replacement liquids and with cholera drugs in preparation for any emergency.

SYRIA

WATER PURIFICATION PLANTS TO COMBAT CHOLERA

Damascus TISHRIN in Arabic 29 Sep 77 p 2

[Text] The Ministry of Housing and Utilities signed contracts for the purchase of 70 pieces of equipment for sterilizing water and 50 others for analysis of chlorine residue. Chlorine is added to water as a disinfectant. The purchase represents the ministry's involvement in the prevention and sanitation campaign. The equipment will be distributed to water departments throughout the country for use in maintaining water purity.

Governmental agencies and civic organizations continue to wage a preventive campaign. The executive bureau of the Farmers Union in Homs met to discuss health conditions in the rural parts of the province and the effectiveness of the rural campaign in the fight against cholera. Today's meeting witnessed a decision to form a committee to tour villages along the al-'Asi basin. The committee will disseminate health-related information and meet with farmers to explain the dangers of cholera and urge them to follow health regulations to prevent contamination and spread of the disease.

Dr Hani Mansur, in charge of prevention in the Tartus district health office, reported that no new cases of cholera were reported during the past 4 days and that the province was free of the disease. Party, civic, as well as official organizations continue to work to keep the province free of cholera.

The women's union in Deir al-Zur conducted a discussion attended by large crowds of mothers regarding the dangers of cholera and explained methods to keep homes clean and eliminate the disease. Practice of health regulations was emphasized to safeguard the health of the population.

In the province of Dar'a all municipalities were directed to continue use of insecticides for an additional week. The committee requested in its meeting the day before yesterday that administrative offices and other concerned agencies execute all decisions and recommendations of the committee and that the governor, as head of the health council, be informed without delay of the progress of execution.

The doctor in charge of the health department of Dar'a reported that the province continues to be free of cholera and that all efforts are being exerted to keep it that way.

NUMBER OF CHOLERA CASES DECREASES

Damascus TISHRIN in Arabic 30 Sep 77 p 2

[Text] The number of new cholera cases reported dropped noticeably as compared with the day before yesterday and previous days. Eighteen new cases were reported yesterday in the provinces of the City of Damascus, Damascus, Aleppo, Latakia, Homs, Hamah, Idlib, and Tartus, compared with 29 the day before yesterday. No new cases were reported in the other provinces.

A spokesman for the Technical Anticholera Committee said that among the new cases, one case each was reported in the provinces of Hamah, Idlib, and Tartus. He confirmed that no deaths were reported for the fourth consecutive day, and that the provinces of al-Suwayda', al-Hasakah and al-Qunaytirah are still free of the disease.

The Syrian delegation headed by Dr Nuri Ramzi, assistant to the health minister, returned to Damascus yesterday after attending an emergency meeting in Cairo for health officers of Arab countries.

Dr Ramzi reported that the Cairo meeting reviewed the cholera situation in the region and agreed on a unified Arab plan to prevent the spread of the disease to Arab countries and formulated procedures with respect to travelers and imported foods from the stricken areas.

Participants in the meeting were urged to give attention to cases of diarrhea, to conduct necessary laboratory testing to determine causes, and keep the environment clean. They were also to exchange information with respect to diagnoses, treatment and methods of combating infectious diseases. In view of the ineffectiveness of the procedure, the participants agreed not to resort to mass inoculation against cholera in order to prevent its spread, and to concentrate on preventive measures instead. There was also agreement to form a national committee to combat epidemic diseases in Arab countries. The committee will include experts from Syria, Jordan, Egypt and Iraq. Arab governments were asked to contribute to the Palestinian Red Crescent organization and the health ministries of Lebanon and Somalia.

Damascus TISHRIN in Arabic 2 Oct 77 p 2

[Text] A spokesman for the Technical Anticholera Committee announced that no new deaths caused by cholera have been reported for the 6th consecutive day. The spokesman confirmed that the number of cases continues to decline, which indicates that the disease is under control. He cautioned, however, that it is too early to say the disease has been eradicated, and recommended extra care, particularly during this period which coincides with the passage of pilgrims through the country.

The spokesman said the new cases, numbering 21, appeared in the provinces of Damascus, Aleppo, Hamah, Idib, and Dayr al-Zawr. No new cases appeared in the City of Damascus, or in the provinces of Homs, Tartus, al-Hasakah, Dar'a, al-Suwayda' and al-Qunaytirah.

The spokesman urged all citizens to exercise caution, cooperate with health authorities, adhere to health directives, maintain personal and general cleanliness and refrain from eating fresh foods (fruits and vegetables) whose condition is questionable.

A reliable source in the Health Council declared that efforts to combat the disease are progressing well throughout the country and that the number of cases is gradually decreasing. The same source also strongly denied rumors being circulated in some places that plague and other epidemic diseases exist in the country.

The Ministry of Education decided to undertake a campaign to maintain cleanliness in schools and their vicinities, in view of the beginning of a new school year. The ministry requested all school districts in all provinces to provide sealed tanks for drinking water in every school. The tanks must be equipped with external faucets and must remain closely monitored to prevent contamination. It also requested that school doctors and nurses examine children who complain of diarrhea and refer them to the nearest health center in the province.

In Tartus youth and labor organizations circulated information to teachers and school personnel and urged that children be made aware of the value of cleanliness as a preventive measure. The police superintendent also inspected city schools and cautioned principals to bar food vendors from selling to school children.

The governor of al-Hasakah ordered some places of business to close in al-Qamishli because of the failure of their owners to adhere to health directives, and requested municipal workers to clean the banks of the Jaghjagh river. He urged health officers to remain vigilant in order to protect the public health and prevent the spread of the disease to the citizenry. This occurred during the governor's visit to the town of al-Qamishli in order to ascertain compliance with the directives of the Health Council. It is part of the continuing effort to keep al-Hasakah Province free of the disease. The governor began his tour by visiting the National Hospital. He then toured the banks of the Jaghjagh river and inspected butcher shops and other places of business. At the end of his visit the governor said that the province was still free of cholera. He expressed satisfaction that directives of the Health Council were being complied with.

The governor of Hamah Province also inspected the progress of municipal projects and reviewed compliance with health measures. He was particularly concerned with night operations of municipal sanitation crews.

A reliable municipal source said that plastic trash bags were available in stores and that penalties are imposed on people who do not use the bags for garbage disposal.

The Executive Bureau of the Province of the City of Damascus in cooperation with party leaders has prepared a plan for a month-long clean-up campaign for the City of Damascus. Youth, civic and student organizations will take part in implementing the campaign. The campaign will be waged in every street, neighborhood and alley of the city including the old city. Informational discussions will be held to increase the awareness of the public of their obligation to maintain cleanliness.

TANZANIA

EL TOR CHOLERA OUTBREAK SAID TO BE SPREADING

Lusaka TIMES OF ZAMBIA in English 16 Nov 77 p 3

[Article by Brown Leng]

[Text] Dar es Salaam, Tuesday--Medical authorities have identified the contagious disease which has so far claimed the lives of 56 people in Tanzania as "eltor cholera."

A Ministry of Health spokesman said "el tor cholera" was relatively a mild strain of disease which could be contracted through contaminated food and water.

He said the outbreak of the disease in Rufiji took place after visitors from an unnamed Arab country were entertained by one host who died a few days later indicating the visitors from the Middle East introduced it.

Formerly, officials had said the disease was merely dysentery but only admitted today it was cholera.

The dead trader who had invited and entertained the visitors was buried with great ceremony and many people had stayed behind eating and drinking thus contracting the contagious "el tor cholera."

Within a few days eight more people who had attended the burial ceremony died of the disease and it went on spreading rapidly to other neighbouring districts before authorities were alerted of the outbreak.

But he said the situation was now under control in the affected areas and warned people to observe health regulations near Dar es Salaam because one person died last week on the outskirts of the capital.

Tandika shanty township a few kilometres from the city centre was placed under quarantine and officials hastily distributed drugs to residents after the death of one person.

The spokesman said more districts were infested with the disease including Moshi and Mafia, the former being situated in Tanzania's northern tourist circuit.

The World Health Organisation has been informed of the outbreak.

THAILAND

CHOLERA OUTBREAK

Bangkok NATION REVIEW in English 30 Oct 77 pp 1, 3 BK

[Text] A warning against the spread of cholera was issued yesterday after one person died and nine others are being given treatment in Bangkok and Ranong provinces. The first victim was reported in the coastal province of Ranong, where eight other patients are being given treatment. One case has been reported in Bangkok. Director General Manatsawi Unhanan of the Communicable Diseases Department said yesterday that he had sent out urgent orders to provincial health authorities to give anti-cholera injections to local people. Acute diarrhoea has also hit several provinces including Chon Buri, Chumphon and Bangkok.

Bangkok BANGKOK WORLD in English 1 Nov 77 p 2 BK

[Text] Five more cholera cases were reported yesterday in Ranong Province, bringing the total to 15 with one having died, an official at the cholera centre of the Communicable Disease Control Department said. In Ranong alone 14 people came in contact with cholera and one of them died of the illness last week. Another death was reported in Bangkok. Dozens of people are also undergoing treatment for acute diarrhoea in nearby Chumphon Province, with some suspected of carrying cholera as well. An official said the current outbreak of the disease is believed to have been brought to the provinces by Burmese working in Thai territory along the border. He also noted that the first cholera victims found in Ranong last week were all Burmese. Following the outbreak, local health officials are continuing to give anti-cholera vaccinations to the public.

Bangkok BANGKOK POST in English 1 Nov 77 p 3 BK

[Text] The Health Bureau of the Bangkok Metropolitan Administration has been on alert since last week following a reported single case of cholera in Thon Buri--the first case in several years, Dr Suphawat Phannachet, deputy governor for public health, said yesterday.

The cholera strain, known as El Tor Okawa, was contracted by a girl in Thon Buri and she was sent to Bamratsanaoun Hospital for treatment. She has recovered satisfactorily.

Dr Suphawat said that the bureau has sent medical authorities to give an on-the-spot investigation at the patient's home and give vaccinations to the people in the vicinity.

"So far, the source of the disease strain has yet to be uncovered and it is very difficult to locate it until more cases are reported," he said.

The Deputy Governor said that the bureau has closely contacted with Ranong health authorities where 15 cases of cholera were reported during the last few weeks.

Dr Suphawat ruled out the necessity for the city residents to get immediate vaccination against cholera upon learning about a single case of cholera in Bangkok.

TURKEY

CHOLERA NOTED, BROAD PRECAUTIONS TAKEN

Istanbul CUMHURİYET in Turkish 4 Oct 77 pp 1, 9

[Text] Izmir (CUMHURİYET Aegean Bureau)--Dr Orhan Eroglu, chief surgeon at Children's Hospital, said that two children named Ergin Yuzuak and Ramazan Akcalis, under treatment in the hospital's contagious diseases service, have cholera. Dr Eroglu noted also that they had written a letter to the health directorate asking what to do in case the children's families were carrying the disease.

It was learned in this connection that broad precautions against a cholera epidemic have been taken in the poor ghettos.

According to information we obtained, the families of Ergin Yuzuak and Ramazan Akcalis took their children to Children's Hospital, where they said, "They have diarrhea; we are afraid it is cholera," and asked that they be given the proper treatment. Both children were admitted to the contagious diseases service. Tests were run, but when it was impossible to diagnose the disease accurately, the data were sent to the Hygiene Institute.

The data taken from 3-year-old Ergin Yuzuak, who was admitted to the hospital with patient No 11242, and Ramazan Akcalis, admitted with No 11166, were sent to the Hygiene Institute for examination and both children were pronounced to have cholera. The director of the Hygiene Institute reported the results of the tests to the health directorate and to the chief surgeon at the children's hospital here.

Hygiene Institute officials said that they did not have the authority to make announcements of this sort but that they had evaluated the data they received and had forwarded the results to the health directorate.

Assistant Health Director Dr Naci Kultur said that they did not receive the letter from the Children's Hospital yesterday, that it might have arrived several days ago. "However, only the director would know. He is not here today. You may learn the true situation from him tomorrow and find out whether any measures were taken with respect to the families," he said.

In addition, Municipal Health Affairs Director Dr Cahit Uzumcuoglu announced that they had taken broad measures to prevent intestinal infection and the spread of cholera in the city and gave the following information on this matter:

"Our doctors are examining the citizens, working in six separate sectors each day. Also, drinking water is being treated and municipal dumps are

continuously disinfected. So far there has been no incidence of these diseases. The people from the provincial health directorate are also working very hard on this."

Dr Uzumcuoglu also warned residents that they should not eat fruits and vegetables unless thoroughly washed and that garbage accumulated in the home should not be dumped in the streets but kept in closed containers.

Istanbul HURRIYET in Turkish 17 Oct 77 p 15

[Excerpts] As a result of the presence of intestinal illness recently observed in various parts of Istanbul, and in an effort to take measures against the spread of cholera, certain measures have been taken by the Health Ministry. In this regard the sale of water by tank trucks has been forbidden; the municipality has been ordered to make an analysis of all springs which supply drinking water to the demijohn water distributors, and in certain cases demijohn bottling organizations will be ordered to chlorinate the water and apply special caps to the demijohns to be sold to the public.

VENEZUELA

CHOLERA VACCINATIONS

Caracas ULTIMAS NOTICIAS in Spanish 17 Sep 77 p 5

[Article by Ernest L. Rodriguez]

[Text] Maiquetia, 16 Sep--Vaccination against cholera is continuing for all passengers arriving in the country by plane from Europe, where that scourge is spreading uncontrollably.

At "Simon Bolivar" International Airport, health officials have processed thousands of passengers returning from Europe every day in order to prevent entry of that serious disease into Venezuela.

Since the day that the cholera threat was reported internationally, the SAS [Ministry of Health and Social Welfare], through the La Guaira health unit and its personnel stationed in Maiquetia in order to cover the airport, began to vaccinate all passengers arriving in the country from Europe.

Those leaving the country are not vaccinated because that is the responsibility of the country to which they are traveling, although as a precaution every traveler leaving Venezuela should be immunized to be adequately protected.

Until now, not a single positive case of cholera has been found among passengers arriving from areas where the disease is afflicting large numbers of people.

II. HUMAN DISEASES

INTERNATIONAL

BLACK FLY DISEASE PLAGUES AFRICA

Windhoek THE WINDHOEK ADVERTISER in English 21 Oct 77 p 5

[Article by Maureen Johnson]

[Text] Ouagadougou, Upper Volta--The Mossi, the largest single tribe in this poverty-stricken West African State, have a proverb which says "the rivers are eating the eyes."

It sums up a devastating toll of human misery wrought by one of the cruellest diseases that ravages Africa and other parts of the Third World --Onchocerciasis, commonly known as River Blindness or Black Fly Disease.

The disease comes from the transmission of the threadlike worm, Onchocera Volvulus, by a tiny black fly, Silulium, which thrives in fast flowing streams and rivers in the Tropics.

It starts with an intense itching, followed by a wrinkling and thickening of the skin giving the appearance of old age, before attacking the eyes.

Hand in hand with the human suffering is a severe economic consequence. Frightened villagers surrender fertile river basins to crowd onto plateaus where thin soil and uncertain rains leave listless, undernourished communities vulnerable to other diseases.

River Blindness, the World Health Organization estimates, affects between 20-million and 30-million persons in tropical Africa and Latin America.

In one of the worst-hit areas, the 420,000 square mile Volta River Basin covering parts of seven West African states--Dahomey, Ghana, Ivory Coast, Mali, Niger, Togo and Upper Volta--there are more than a million sufferers. Some 60,000 are blind, while for many more vision is seriously impaired.

20-Year Onslaught

The sheer scope of the disease in this area has prompted relief and hope. The 20-year onslaught by the World Health Organization against the fly that blinds is now nearing the end of its third year.

The 120-million Dollar (abt R102-million) programme is run by a multinational team of physicians, economists and aviators. It employs 700 workers. It is headquartered in a modest single-storey brick building in this sweltering West African capital.

Its spokesman says that more than two-thirds of the Volta River Basin area--where an initial aerial insecticide spraying to destroy Black Fly breeding grounds is complete--is nine-tenths clear of flies.

Continual monitoring of the fly population currently shows only about a 10 per cent reinfestation in the areas sprayed.

But it is also in a sense a never-ending battle. Says Frenchman Mr Rene le Berre, "It is not a war where you say you will win. It is a kind of guerrilla war.

"We can decrease surveillance in some areas, but for 20 years we will have to monitor the breeding grounds."

The 20-year target is set because victims can remain infected for as long as 15 years and be able to transmit the disease. The campaign must therefore last at least 15 years for diagnosing the last new case in the programme area.

Mr le Berre, a small, ebullient French physician, has been in the area 17 years and spent a career fighting the disease. Like other long-time workers among the flies, he has himself contracted a mild form of Black Fly Disease.

Insecticides

The administration of drugs for treating River Blindness requires close medical supervision, which is difficult on a continent where millions of rural tribesmen never see a doctor from birth to death.

Insecticides are thus the only effective way to stop the spread of the disease.

For thousands already blind by around the age of 35 or facing a grim future, it is too late. But eliminating or reducing drastically the fly population will cut both the degree of infection--because people with a mild form will not be rebitten--and the prevalence of River Blindness.

In a badly hit village 90 per cent of the population can be infected, with eye damage occurring as early as adolescence and total blindness in 20 per cent of the population.

With a few people and many flies, the effects are devastating. Large communities provide so many fly targets, people don't know they are in a fly area.

An example, says Mr le Berre, is Bamako, capital of neighbouring Mali. "It is in a very bad area," he says. "If Bamako were a village of 300 people, it would not exist. Because it has 300,000, they don't even know they are in a focus point."

Starting next January medical teams will begin a three-year trek back through villages in the Basin. They hope to find no new cases in babies born since the campaign started and a sharp drop in both the prevalence and degree of severe eye infection.

Vital to the programme is the resettlement of villagers in the river valley areas. Mr David Carney, from Sierra Leone, head of the Economic Development Unit, envisages the resettlement of 650,000 people over the 20 years.

Much of this movement, he says, needs no organising. It will and is happening because of age-old migratory patterns.

"In the past they have gone away, drifted back, had another bad experience with River Blindness, retreated and returned again," says Mr Carney. "Now they won't have to retreat. They can come back now to the treated areas--it is safe."

He estimates that in Upper Volta, the Mossi, driven more by drought than any widespread feeling that the River valleys are safe, will return at the rate of about 20,000 a year.

About 50,000 have moved back to one dangerous area since the December 1974 campaign started, he said.

ARGENTINA

ANTIRABIES CAMPAIGN BEGINS

Buenos Aires CLARIN in Spanish 11 Oct 77 p 25

[Text] Since yesterday and for the next 3 months, the Department of Social Welfare of the province of Buenos Aires will conduct a massive antirabies vaccination campaign that will cover 52 jurisdictions.

The antirabies vaccination ordered by the Department of Social Welfare of the province of Buenos Aires has been in progress since the first of the month. On this occasion it will achieve an uncommon significance, not only because of the magnitude of the scheduled effort, but also because of the stated objective: to achieve the definitive control of rabies in areas of greatest epidemiological importance.

In fact, the vaccination of approximately 2 million dogs is anticipated, just in the area covered by the Federal Capital and the province of Buenos Aires (52 counties), during a 3-month period.

The program also envisions a campaign of sanitary education, which is meant to contribute to the consolidation of the process of reducing this widespread disease. It is estimated that this process achieved a result of the order of 70 percent during the first 8 months of this year. It must be recalled that the epidemiological situation in the Federal Capital and the province of Buenos Aires had deteriorated since 1972 and achieved critical levels in 1976, not just because of the unprecedented 5,000 cases, but also because the disease spread to new areas in the country's interior.

POLIOMYELITIS IMMUNIZATION CAMPAIGN TO BEGIN

Buenos Aires LA PRENSA in Spanish 12 Oct 77 p 7

[Text] In order to maintain the control achieved over poliomyelitis and with the purpose of reinforcing defenses against the disease, the Department of Public Health will implement, on the day after tomorrow and on Saturday, the so-called National Antipoliomyelitis Vaccination Operative.

Included in the vaccination will be all children between the ages of 2 months and 5 years at that time, in addition to pregnant women starting with the 5th month of gestation.

On the dates mentioned, vaccines will be provided at all assisting facilities and official health services (national, provincial or municipal)--and also in schools--between 8 am and 5 pm.

In those provinces in which need or infrastructure require it, mobile brigades will operate, providing door to door vaccination.

The vaccination will be absolutely free of charge at all official posts habilitated for the purpose, and no one may demand any kind of payment. The vaccination is furthermore compulsory according to the terms of Law 19.218.

The Sabin oral polyvalent vaccine will be used, containing the appropriate dose in two drops, to be deposited in the child's mouth. Each person vaccinated will receive a certificate as proof. This must be kept and shown at the time any official business is conducted by that person.

It should be remembered that Law 19.218 provides for arrests and fines of those responsible for minors, and all others under legal obligation to cooperate with the vaccination, should they fail to do so.

SUSPECTED CASES OF PSITTACOSIS

Buenos Aires LA PRENSA in Spanish 14 Oct 77 p 5

[Text] A 9-year-old girl and her 12-year-old brother were admitted for observation at La Plata's children's hospital, because they had been in touch with a parrot at their home, located on 54th Street between 9 and 10. The parrot became ill and is currently exhibiting psittacosis symptoms. In spite of the press request for information, sanitary authorities maintained silence on this subject. It should be remembered that there was a local outbreak of the disease, some time ago, among birds of the same species, as a result of which several people were infected, among them a 70-year-old lady who later died.

OFFICIAL DISCUSSES PLAN TO FIGHT CHAGAS DISEASE

Buenos Aires LA PRENSA in Spanish 24 Oct 77 p 11

[Statement by Col Carlos Nicolas Romanella, interventor at the National Chagas Service, during a press conference]

[Text] The interventor at the National Chagas Service, Col Carlos Nicolas Romanella, provided information during a press conference on the campaign to be started next 1 January against the Chagas-Mazza disease, which he called a "national disgrace."

He first pointed out that the disease extends to 20 provinces within the national territory, with only the southern extreme of the Patagonia area and the Tierra del Fuego territory not affected by the scourge. It is estimated, he stated, that 12,500,000 inhabitants could fall prey to the disease; 2,500,000 are infected and 400,000 suffer from cardiopathy.

He later mentioned the causes leading to proliferation of the "vinchuca," the transmitting agent of the parasite causing the illness (a reduviid bug): dirt, poverty, lack of sanitary education and social indifference.

He added that, faced with this grave situation that has serious human, social and economic consequences, the national government had decided to initiate a frontal attack against the Chagas-Mazza disease. It is to be implemented by Armed Forces civic action "requiring the support of the general population, because we are all liable to contract the disease."

He explained that the campaign will be executed by means of a plan that includes an immediate phase and others that are of intermediate and long

range. He stated later on that the means adopted to eradicate the disease included sanitary education, permanent war on the scourge, scientific research, the improvement of rural housing and fumigation.

He concluded by stating that this action will not be stopped, but will stay on its course until the endemic condition is extinct, because the health of the population is its only goal.

Colonel Romanella also addressed a conference on "Politics of the Nation's Battle Plan Against the Chagas-Mazza Disease" organized by the 141st Battalion of Construction Engineers; the conference was attended by civilian, military and ecclesiastical authorities and numerous members of the public.

The governor, Commodore Francisco Llerena (Ret) signed an agreement with the interventor at the National Chagas Service to continue with the action against the disease in this province, an action that started years ago. La Rioja is one of the five provinces most affected by this endemic condition.

AUSTRALIA

EPIDEMIC OF CONJUNCTIVITIS

Melbourne THE AGE in English 4 Oct 77 p 3

[Article by Jo Wiles]

[Text] Melbourne is suffering an epidemic of a type of conjunctivitis recorded only once before in the world.

Hundreds have been hit by the epidemic, which combines two rare viruses.

The viruses of a group causing respiratory infections are adenovirus type 8 (or "shipyard eye") and adenovirus type 19.

Both are highly contagious and cause inflammation of the cornea and conjunctiva.

The Royal Victorian Eye and Ear Hospital yesterday said several hundred people had been treated in the past 14 months.

All were from metropolitan Melbourne, the acting medical director said.

Some had suffered mild irritation or a gritty sensation in the eyes, while others had been unable to work and had found strong light very painful.

He said the viruses had previously been known to cause isolated cases of kerato-conjunctivitis.

But they had never before been found together on such a scale.

They were first recorded together in epidemic proportions in America last year.

Doctors at the eye and ear hospital and virologists working at Fairfield Infectious Diseases Hospital are expected to publish a report on the epidemic in scientific journals.

A spokesman at Fairfield said yesterday the viruses were extremely difficult to grow and this was the first time they had been identified in large numbers.

Their method of transmission was unknown but it was possible they were picked up in the nose and throat and spread by people coughing and sneezing.

A number of nurses and doctors affected had probably picked up the infection from examining and treating patients' eyes, he said.

TYPHOID CASE IN MELBOURNE

Sydney THE SYDNEY MORNING HERALD in English 5 Oct 77 p 9

[Text] Melbourne--A seven-year-old girl is in the Fairfield Infectious Diseases Hospital with typhoid. She became ill two weeks ago and was admitted to a public hospital and operated on for appendicitis, which has similar symptoms in young children to those of typhoid.

After doctors discovered they had mis-diagnosed the condition, she was sent to Fairfield, where her condition has been gradually improving.

VACCINE AGAINST TAPEWORM DEVELOPED

Sydney THE SYDNEY MORNING HERALD in English 17 Oct 77 p 3

[Text] Melbourne--Veterinary scientists here have developed the world's first vaccine against tapeworm.

The break-through, which follows eight years of research by Melbourne University's senior lecturer in veterinary parasitology, Dr Michael Rickards, promises important economic benefits to the Australian beef industry, and the long-term prospect of eradicating tapeworm throughout the world.

The six metre-long tapeworm, taenia saginata, is little more than a nuisance in man.

Tests on women attending the Royal Women's Hospital indicate that about one in four Lebanese women harbour it.

This is due to their preference for foods containing raw meat.

The tapeworm breeds in the human intestine. The eggs pass out in the faeces and are then swallowed by cattle on land watered with contaminated material, such as sewage effluent.

In cows the eggs hatch out larvae, penetrate the muscle and form cysts.

If humans eat this meat, they are infected.

Once contaminated, the meat is ruled unfit for human consumption.

Dr Rickards said that the vaccine was now being given to pregnant cows and new-born calves at Melbourne University's veterinary research centre at Werribee to see how long it conferred immunity.

"It appears to give almost absolute protection," he said.

"Tests in sheep indicate it is effective for at least a year."

The new vaccine could improve Australia's meat export position because a substantial amount of beef is unusable due to tapeworm infestation.

It may also be possible to more effectively re-use millions of gallons of treated sewage.

VIRUS HITS CITY PEOPLE

Perth THE WEST AUSTRALIAN in English 19 Oct 77 p 12

[Text] A virus infection in the metropolitan area is keeping people off work for up to three weeks.

Some doctors have been stricken, and one who tried to continue working has been ill for nearly a month.

The initial symptoms are a high temperature, headache, throat infection and loss of voice.

Some people get diarrhoea and stomach pains. Others have contracted a secondary infection of bronchitis and broncho-pneumonia.

Doctors south of the river say that most people they have seen have recovered in 36 hours and it has not been necessary to prescribe antibiotics.

But there have been more severe cases in the Fremantle area and north of the river, with some people still quite sick after three weeks.

Doctors advise people with the early symptoms to rest in bed for a day or two, drinking plenty of fluids and taking aspirin if necessary.

With early precautions they have a good chance of recovering quickly without contracting any secondary infection.

BRAZIL

CASES OF TEGUMENTARY LEISHMANIASIS REPORTED IN JACAREPAGUA

Rio de Janeiro JORNAL DO BRASIL in Portuguese 12 Oct 77 p 21

[Excerpt] Since the start of the year, 10 persons with tegumentary leishmaniasis, a mutilating disease which can destroy the nose if left untreated, have resorted to the medico-sanitary center of Vargem Grande in Jacarepagua. The region is the same where an outbreak of the disease with more than 200 cases took place in 1974, and it is considered endemic by the SUCAM [Superintendency for Public Health Campaigns].

The disease, whose incidence increases in the summer, is transmitted by the Phlebotomus mosquito [sic], which lives in the woods of the region and in the banana plants which abound in the area. At the center, which belonged to the Ministry of Health until it was transferred to the municipio in July of last year, no one gives a clear account, but everyone acknowledges the cases, asserting that "the patients are treated in the dermatology section." There are 14 persons under treatment at this time.

Endemic Area

Besides the employees of the municipio, there is a laboratory technician of the SUCAM working at the center (which formerly bore the name Samuel Libanio) who is in charge of the tests to diagnose leishmaniasis. Adducing "orders from above," the technician limits himself to confirming the existence of the cases. "Look, do not take offense, but a colleague who worked here was removed in 1974 because he talked," he says, adding that more details would be furnished by his superior, Dr Hugo Americano do Brasil.

Polite Dr Hugo is not very enlightening, asserting that he does not know anything about leishmaniasis other than the existence of the cases "because

our work here consists in combating schistosomiasis" (endemia existing in several foci in Jacarepagua and Furnas da Tijuca).

According to the SUCAM, the area in question is endemic, and many of the inhabitants of the region discontinue the treatment as soon as they verify the disappearance of the ulcers on the skin. The treatment is effected on the basis of Giucantine administered in four series of 10 injections each, with an interval of a week between series.

The persons most affected by the disease are the inhabitants of the Cambugui Sierra, a chain of hills which separates Vargem Grande from Campo Grande. At present, according to information obtained at the center, cases of the disease have already been registered "on the other side" (in Campo Grande). Those cases would have been referred to the Dermatology Service of the Gaffree Guinle Hospital for treatment. According to officials of the center, the presence in the premises of inhabitants with wounds "which do not heal" despite medical treatment is common. The problem is that many doctors are not familiar with the lesions of leishmaniasis, treating them as common ulcerations without success.

OUTBREAK OF VISCERAL LEISHMANIASIS REPORTED IN SERGIPE

Brasilia CORREIO BRASILIENSE in Portuguese 19 Oct 77 p 5

[Text] Salvador--Byron Ramos, sanitarian doctor and assistant instructor of the Medical Science Faculty of the Federal University of Sergipe, alerted the authorities of his state to the high incidence of the visceral leishmaniasis disease, the "black fever" of dire consequences to the human organism which already afflicts people in about 40 percent of the municipalities of Sergipe.

To Byron Ramos, "black fever" is a threat as serious as schistosomiasis and not even the hospitals of Aracaju have the infirmaries for the treatment of the diseases, which is rather expensive and requires about 2-3 months of confinement.

MEASLES PRESENTS NEW THREAT TO SALOMA INDIANS

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 16 Oct 77 p 36

[Text] Cuiaba--After being afflicted for the first time by an outbreak of influenza last month, the Saloma Indians, contacted only 3 years ago in the valley of the Cravari River, now run the risk of contracting measles. To prevent that from happening, missionary Thomas de Aquino Lisboa, who contacted the group and has been establishing closer relations with the support of the FUNAI [National Indian Foundation], is in Cuiaba to get vaccines.

The Saloma group, still practically unknown, is composed of 126 individuals and up to now has had no contact with whites other than the missionaries and nurses of the Anchieta Operation, who periodically visit the village. According to Fr Thomas de Aquino, the influenza outbreak did not kill any of the Indians of the group only because the nurses arrived in time and the Indians were not reluctant to receive injections for the first time.

The FUNAI delegation at Cuiaba authorized the missionary to tour, starting this week, the various Cintas-largas Indian villages located along the axis of the AR-1 Highway in the region of Aripuana, on the extreme north of Mato Grosso. Thomas should ascertain the results of the contacts of those Indians with whites, which have frequently occurred of late. The FUNAI itself reports that there are still innumerable small groups of Cintas-largas Indians in the region which have not been contacted, while those which settle close to the highway opened by the government in Mato Grosso sporadically approach the workers.

STUDY INDICATES STUDENTS' SUSCEPTIBILITY TO TUBERCULOSIS

Rio de Janeiro JORNAL DO BRASIL in Portuguese 20 Oct 77 p 18

[Text] Brasilia--An investigation conducted by the Ministry of Health has confirmed the fact that 12 percent of the students in grades 1 to 10 in the Brazilian capitals are infected with the Koch bacillus, which means that there is a considerable chance that they will contract tuberculosis. The highest index is that in Belem, namely, 26 percent; and the lowest is in Florianopolis, where it is 3 percent.

However, the investigation discovered that, during the past 3 years, the total number of victims declined from 500,000 to 300,000, of which number 100,000 are recent cases. According to the National Tuberculosis Division, over 80 percent of the cases were caused by indiscriminate close contact with the parents. It is difficult to end the contamination, because the infected person harbors the bacillus until he dies.

Decline

The National Tuberculosis Division (DNT) claims that, within 8 or 10 years, there will be a sharp decline in the number of victims, because of inoculation (which immunizes 90 percent of the time); and that, right now, there will only be a drastic cut in the number of cases of tuberculous meningitis, because this year a vaccination system was begun which uses intradermal BCG in children from 30 days to 14 years of age; and, starting in July 1978, the family wage will not be paid until proof is given that all children under 5 years of age have been inoculated.

The DNT attributed the increase in the number of victims up until 1975 to the lack of effective control programs and the absence of facilities for

the distribution of medicine, which is no longer the case. In addition to the creation of the Central Office of Medicine, by next year the government expects to be treating at least 70 percent of the victims in the country through specialized services in the general hospitals. For this purpose, a total of 9,300 professionals will be trained at the higher and intermediate levels. At the present time, the DNT runs 11 hospitals, with funds amounting to about 200 million cruzeiros.

Another factor which has caused Brazil to have the current indexes is the lack of a health service system capable of treating individuals who are suspected of having contracted the disease. In 1972, a DNT study revealed that of the 579 municipios in the North-Central-Western macroregion, only 45 percent had permanent health services; of the 1,244 municipios in the Northeast, only 53.5 percent had them; and of the 2,127 municipios in the South-Southeast, 75 percent had such facilities. As for specific tuberculosis control services (at the time, the average was 10 percent), they now exist in 1,200 municipios; and, by 1980, they will be provided in an additional 800.

OFFICIALS REPORT ON CHAGAS, LEISHMANIASIS DISEASES

Sao Paulo FOLHA DE SAO PAULO in Portuguese 22 Oct 77 p 10

[Text] Brasilia--Yesterday, the Ministry of Health's superintendent for public health campaigns, Ernani Motta, admitted that there is a major focus of Chagas disease in the state of Sao Paulo--"large, fine and ready to be combated." In this way, SUCAM [Superintendency for Public Health Campaigns] confirmed charges made yesterday to the effect that the eradication of the pestilence has not occurred in the federation's wealthiest state.

However, Ernani Motta said that the battle against the disease has been concentrated in the office of the Secretary of Health, "which is waging the battle with its own autonomy, and which has been quite efficient in its performance, as the reports which we have ordered confirm."

Recently, the SUCAM superintendent protested the "outbreak of claims that barbeiros [transmitters of Chagas disease] have appeared"; stating that, in some instances, they "were nothing but beetles or cockroaches." Nevertheless, in its admission that there is a "major focus of Chagas disease in Sao Paulo," the SUCAM has proceeded to deal with the problem from a different angle, devoid of unofficial sensationalism.

Information made available at the Ministry of Health gave reason to anticipate that the public health agency intends to intensify promptly the present system of spraying homes with the insecticide BHC, with the announcement that it is going to import German technology to produce anti-Chagas vaccines on a scale sufficient to allow for exports to Africa.

A recent report used by Minister Almeida Machado in a deposition made in the House of Deputies attests to the presence of the barbeiro "in dwellings located in the extensive strip of territory ranging from Maranhao to Rio Grande do Sul, and from there to the West Central region, in over 1,200 municipios, and over an area of nearly 2 million square kilometers (a third of the national territory), in discontinuous zones."

Without giving exact data on the index of mortality caused by Chagas disease, the report nevertheless states that the municipio of Ribeirao Preto has recorded a death rate of 234 per 100,000 inhabitants, which is officially regarded as "extremely serious."

Sao Paulo FOLHA DE SAO PAULO in Portuguese 25 Oct 77 p 17

[Text] "Chagas disease is under control in Sao Paulo, and the investigation is being handled on the level of the office of the state secretary of health." This statement was made yesterday by Health Minister Almeida Machado, after his lecture at the seminar on environmental chemistry and ecotoxicology, held at the CETESB [Basic Sanitation Technological Center]. The minister's report refutes the statements made at the end of the week by the superintendent of public health campaigns of the Ministry of Health itself, Ernani Motta, who admitted the existence of a major focus of Chagas disease in the state of Sao Paulo, which was "large, fine and ready to be combated."

The Sao Paulo secretary of health, Walter Leser, who also attended Almeida Machado's lecture, confirmed the minister's report, adding: "There is virtually no more transmission of Chagas disease in the state of Sao Paulo, because acute cases are rare."

However, immediately thereafter, he declined to answer a reporter who had asked him about the charge of a focus in Sao Paulo, claiming that this was a "leading question." He also claimed that he was unfamiliar with a report from the Ministry of Health which cites high rates of mortality (caused by Chagas disease) in Ribeirao Preto. This report revealed that there were 234 deaths per 100,000 inhabitants. Although he had just said that he had no knowledge of the report, Walter Leser claimed: "That index is a result of an infection that occurred 40 or 50 years ago, and those infected are just starting to die now."

"Virtually Controlled"

In the afternoon, the Superintendency for Control of Endemics [SUCEN] reiterated that "Chagas disease has been virtually controlled in the state of Sao Paulo, insofar as natural infection is concerned," according to statements made by Dr Benedito Meireles, who explained that the SUCEN's goal is the prophylaxis of the insect known as the "barbeiro."

Benedito Meireles explained that control of the insect had been under way since 1959, but that there had been major concern over the disease since 1950. But it was not until 1959 that, through an agreement with the World Health Organization for malaria control, extensive investigations were made of dwellings and localities in the rural areas which served as the basis for subsequent studies on Chagas disease.

From 1950 until 1967, the "dragnet" system was used, consisting of the spraying of dwellings with DDT in order to exterminate the insects which transmit the disease. In 1968, the "selective" method was adopted, whereby DDT was sprayed only in dwellings in which one of the types of insect transmitting the disease was present.

Sao Paulo FOLHA DE SAO PAULO in Portuguese 29 Oct 77 p 1

[Text] Brasilia--Approximately 8.4 million Brazilians are afflicted with Chagas disease, which is equivalent to a national index of 7.1 based upon a population of 120 million. This information was obtained from the national survey of Chagas disease, the first made in the country, under the auspices of the National Scientific and Technological Development Council [CNPq] and the Ministry of Health. The state with the greatest incidence of the disease was Rio Grande do Sul, where 20.9 percent of the population is affected. The slightest incidence was in the state of Maranhao, with only 0.08 percent. According to the researchers, Chagas disease has been completely eliminated from the state of Sao Paulo.

The national survey on Chagas disease was released after the meeting of the subcommittee on social development of the Second Basic Plan for Scientific and Technological Development [PBDCT]. The committee made an evaluation of the research programs in the areas of schistosomiasis, Chagas disease, malaria and leishmaniasis, concluding that the effort has been effective, with an average of 150,000 cruzeiros assigned per project annually. The funds used on research in these fields were about 51 million cruzeiros during the 2-year period from 1976 to 1977, and will amount to 81 million cruzeiros for the four endemics alone during 1978-1979.

The problem of schistosomiasis in Brazil is rather serious, and no one has any idea when it will be possible to control the disease. This statement was made by Prof Aluisio Prata, coordinator of the endemic diseases group affiliated with the CNPq's Scientific and Technological Council.

Chagas disease is being combated by spraying and improving the dwellings, especially those of the population in the interior of the country. Some progress has been made in the former aspect but, with regard to the latter, the professor offers little hope, because it involves a problem more closely associated with the nation's economic and social structure.

Leishmaniasis

Although no surveys are available, Prata claimed that leishmaniasis is also widespread in Brazil (the disease is commonly known as "ferida brava" [literally, "harsh wound"], and attacks the nose and mouth in particular). In Sao Paulo alone, 100,000 cases were discovered.

In the interior, the incidence of the disease, which is highly contagious, is also very extensive. According to a CNPq report, "The problem has affected armed forces detachments stationed in reclaimed areas in a particularly serious manner."

The CNPq report states that the Ministry of Health uses imported molluscicides to combat endemics by spraying. The development of molluscicides made from native raw materials by the entity's researchers would enable the Ministry of Health to replace the imported products without interfering with the degree of control that has been achieved.

The Ministry of Health uses chlorinated DDT and BHC insecticides to control the vectors of malaria and Chagas disease. According to the report, the use of these compounds has been criticized and restricted, owing to their cumulative presence in and toxicity to several organisms.

The Research

The national survey on Chagas disease was conducted with a sampling of 332,621 individuals. A total of 23,689 were found to have the disease, 301,690 were not carriers of it, and there were 6,037 which were regarded as "doubtful" cases. The national index of the disease was obtained through a projection of these data.

HEALTH SECRETARIAT DENIES MENINGITIS OUTBREAK IN STATE

Rio de Janeiro JORNAL DO BRASIL in Portuguese 26 Oct 77 p 8

[Text] Yesterday, the office of the state health secretary announced that the meningitis of Patricia Cardoso, a 3-year-old pupil at the Recreational Day Care School in Icarai, was caused by the bacteria hemophil, and is not contagious. The existence of an outbreak was denied. With regard to two fatal cases recorded last week in Niteroi, it claimed that they were not caused by the meningococcus, despite the fact that they had not been reported.

The secretary's office guarantees that the disease is under control in the state, and that the incidence has been declining. In September 1976, 36 cases of meningococcic meningitis (the transmittable type) were reported, and, a year later, there were 25. Since 1 October, 18 cases were reported in the entire state, 9 of which occurred in the municipio of Rio de

Janeiro. The children who died in Niteroi were a 7-year-old girl (in the PM [Military Police] Hospital) and 16-month-old Wallace Amaral, at the SAMDU [Home and Emergency Medical Assistance Service].

POLIO IMMUNIZATION CAMPAIGN BEGUN IN BELO HORIZONTE

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 4 Nov 77 p 14

[Text] In an attempt to reduce the indexes on the incidence of poliomyelitis in Belo Horizonte (which is regarded as static, with six children permanently confined in special hospitals), the Secretariat of Health will sponsor a house by house vaccination on Sunday of the child population in the Minas Gerais capital, covering the poorest areas (31 slums and 116 peripheral districts and settlements).

Secretary Dario de Faria Tavares attributed the maintenance of the indexes on the incidence of poliomyelitis to the rural exodus: "Every month, nearly 10,000 people arrive in Belo Horizonte in search of better living conditions, but they end up by being alienated, and succeeding only in sharing urban problems, which include making a large contribution to the increase in the mortality rate among children."

The health secretariat will mobilize 2,500 vaccination personnel, in addition to 1,000 in the backup system, in an attempt to immunize about 200,000 children from 2 months to 4 years of age, from 0700 to 1900 hours. The vaccination will be concentrated in the 31 slums and 116 peripheral districts and settlements around the city. In the other regions, 31 permanent stations will be set up; since it is an accepted fact that there are virtually no unimmunized children in the middle and upper-class families.

The vaccination in the slums and peripheral districts in which there is a concentration of people recently arriving from the interior will take place from house to house, having been preceded by a drive for joint information to the communities. The second and third doses of the Sabin vaccine will be administered in similar operations during January and May of next year. Depending on the results of Sunday's work, the vaccination system, used for the first time in the country, will later be applied in other urban centers in Minas.

With the use of vaccination, the Secretariat of Health is attempting to reduce the indexes on poliomyelitis in Belo Horizonte, and to eliminate the chance of cases occurring in the outlying areas of the city, "where the population does not share any of the advantages of urban development, but only the problems." In the future, it will adopt an anticipated vaccination system for families which move to the capital of Minas Gerais, whereby stations will be set up at the highway stopping places and railroad depots and at all the city limits. If it proves successful, next Sunday's system will be used for other kinds of inoculation (anti-tuberculosis, measles, whooping cough, etc.).

REPORTED CASES OF TYPHUS IN SALVADOR DENIED

Rio de Janeiro JORNAL DO BRASIL in Portuguese 5 Nov 77 p 16

[Text] Salvador--Yesterday, Deputy Aristeu Almeida, of MDB [Brazilian Democratic Movement] disclosed to the Bahia Legislative Assembly the existence of 15 cases of typhus in Periperi, a suburb of this capital, and accused the secretary of health, Ubaldo Dantas, of "being more concerned over his election campaign than with the health of the population, now that he is a declared candidate for federal deputy."

The head of the health secretariat's office and public health physician, Gelson Lopes, denied the presence of typhus, claiming that the disease is non-existent in Brazil. He admitted the incidence of cases of typhoid fever, "a benign disease which can be cured in 2 days if properly treated;" but claimed: "Even so, the number of cases reported by the health secretariat's group by no means approaches the 15 cited by the deputy."

The health secretariat's office head said that there is a very great difference between typhus and typhoid fever, and that Deputy Aristeu Almeida, "as a layman, is mistaken." According to Mr Gelson Lopes, "Typhus is an extremely serious disease, transmitted by a species of body louse, and only occurs in Europe."

He said: "Typhoid fever is a disease transmitted by a genus of salmonella, and can be cured with antibiotics. We actually do have some cases of the fever in Bahia and other states in the country, especially in polluted areas and among poor people who eat spoiled food."

HEALTH MINISTER NOTES COST OF SCHISTOSOMIASIS TO COUNTRY

Brasilia CORREIO BRAZILIENSE in Portuguese 8 Nov 77 p 8

[Text] "Every year, Brazil loses \$150 million (nearly 2.5 billion cruzeiros) of its gross national product (GNP), which is far more than the Ministry of Health spends on its program to combat schistosomiasis. This loss represents the 15 million persons who are infected with the disease." This statement was made yesterday by Health Minister Almeida Machado in an address delivered at the opening of the course in prophylaxis and control of rural endemics, given at the University of Brasilia.

The health minister stipulated as one of the priority measures for combating diseases a basic sanitation, included in the program devised for this year and carried out in over 22,000 municipalities all over the country. The minister remarked that it was during the period when Brazil was under Dutch rule that schistosomiasis arrived here, specifically, during the Palmares Republic, when conditions for the proliferation of the disease were created.

In his address on schistosomiasis, the minister said that there is a phase when there is a greater risk of infection and a phase when the risk of individuals' contracting the disease is less; and that his ministry's concern is precisely to ascertain the phase of greater risk, so as to combat the disease, which has been a constant concern of the experts in that field.

Praising the students, Almeida Machado said that they are not studying merely diseases now, but that "the students are thinking of the victims and of the conditions surrounding the individual's illness;" adding: "The younger generation is concerned about the basic problems." On his travels around Brazil, the health minister said that he "observed that students are not interested in money alone, but are really concerned about health."

Program

The program outlined by the Ministry of Health for combatting schistosomiasis will serve as an example for the other nations of the world, which will use it in their countries. That is why the Pan-American Health Organization requested of the ministry that permission be given to translate the Brazilian program to combat schistosomiasis into English, to publish it under its auspices and to have it distributed throughout the world. This announcement was made yesterday by Minister Almeida Machado, who added: "This represents universal recognition of our country."

During the course of the endeavor, methods and fields of specialization will be established and divided into areas based upon geographical and socio-anthropological criteria. A survey will be made to locate breeders and foci. A survey will also be made of the habits of the population in rural social centers. Basic sanitation, laboratories and mini-stations will be established.

Coprological investigations will also be made in each area of operations, and research will be done on water collection, which will be made safe for humans, and there will be campaigns to inform the public.

100,000 NEW CASES OF TUBERCULOSIS IDENTIFIED ANNUALLY

Rio de Janeiro JORNAL DO BRASIL in Portuguese 9 Nov 77 p 16

[Text] Recife--Yesterday, Dr Luis Regueira, of the SESP [Special Public Health Service] Foundation, disclosed that 100,000 new cases of tuberculosis are discovered annually in Brazil at present, a number which "ranks us among the countries with the lowest health index [sic] in the world, despite the inefficiency of the methods of diagnosis that are used."

He scored the research on the disease which uses bacilloscopy of the sputum and X-rays, citing data collected in Bahia and Minas Gerais in which a large number of oversights were found. He said: "In my opinion, with this policy

on health the mortality rate from tuberculosis will increase shockingly in Brazil, because it will be impossible to diagnose the victims with either of these types of examination alone."

CUBA

DENGUE FEVER CASES AND MEASURES TO BE TAKEN

Havana GRANMA in Spanish 10 Nov 77 p 2

[Text] The National Department of Epidemiology reported the following trends in the dengue fever sector, by province for the month of October: Pinar del Rio: Reports few cases; however there is a trend toward a slight increase. City of Havana: Marked increase. La Habana: Marked increase. Matanzas: Marked increase. Villa Clara: Marked increase. Sancti Spiritus: Marked increase. Cienfuegos: Reports few cases, stable trend (on the plateau). Ciego de Avila: Marked increase. Camaguey: Slight increase. Santiago de Cuba: Marked decrease. Granma: Clear decrease; however not as marked as Santiago. Guantanamo: Marked decrease. Holguin: Slight decrease. Tunas: Reports few cases and the trend is toward stabilization (on the plateau). Isla de Pinos: Although a few cases continue to be reported, the trend is toward a marked decrease.

Havana GRANMA in Spanish 10 Nov 77 p 2

[Article by Jose A. de la Osa]

[Summary] Members of the 16 "Arcadio Garcia" CDR [Committee for the Defense of the Revolution], in the San Agustín District of La Lisa, met to discuss dengue fever. The CDRists knew the symptoms of the disease "perfectly" and were also very well acquainted with the sole transmitting agent of this disease: *Aedes aegypti*.

The CDRist mass meeting committed itself--and thereby challenged all of the CDR's of the country--to initiate a war without quarter against *Aedes aegypti* which lays its eggs in clean water stored right in the house or in its vicinity.

"Starting tomorrow," said CDRist Olimpia Diaz, "in this CDR we are going to establish a commission, with the guidance of Public Health to visit all residents and to request that they change their supplies of drinking water every 48 hours. And we will check the areas around the CDR to eliminate cans, bottles, and tires which are potential breeding sites for mosquitoes in order to insure the maintenance of systematic cleanliness in all of our city blocks. Oh yes! We will put our 'arum' cuttings and flowers in dirt or wet sand."

To this Vicente Valdes added: "...because, comrades, dengue is a problem of the masses. We, the masses, aware of that, will immediately commit ourselves to this task which the Ministry of Public Health has placed in the hands of the defense committees."

Havana BOHEMIA in Spanish 21 Oct 77 pp 90-91

[Article by Yago Morejon]

[Excerpts] Last August several inhabitants of Santiago de Cuba had symptoms of an illness that at times appeared to be grippe, at other times measles or German measles. Doctors wondered if it might be dengue fever, but Cuba has not had dengue fever since the forties. Blood samples of the patients were taken, and an official carried them rapidly by plane to the Institute of Hygiene and Epidemiology of the MINSAP [Ministry of Public Health] for analysis. It was confirmed there that they were dealing with one of the benign forms of dengue fever.

Shortly afterwards, on 20 September, the municipal office of public health of Boyeros requested urgent advice from the administration of the city of Havana because seven cases had been reported in Wajay which were difficult to diagnose. On the 24th it was confirmed that the cases were also dengue fever.

MINSAP is applying energetic measures to exterminate adult mosquitoes. Two applications of insecticide have already been made in the entire city of Santiago de Cuba, including the airport, railroad and bus terminals, school centers, etc. Areas in Palma Soriano, El Cristo, Songo-La Maya, San Luis de Jagua, Mella and San Luis have been sprayed by air. In Havana there are health jurisdictions (each with 20,000-25,000 inhabitants) which have been completely fumigated. Work is proceeding without interruption, even on Saturdays and Sundays, with the closest cooperation of pedestrians and inhabitants. The CDR [Committee for the Defense of the Revolution] has already had meetings on the subject and there are several CDR-MINSAP presentations where orientations of this sort have been made.

To conclude, we remind ourselves that there are 58 species of mosquitoes in Cuba. Therefore, their control is not at all easy. That is why we must close ranks with MINSAP to free ourselves from dengue fever and the other mosquito scourges. For this the first thing we must do is eliminate all opportunities for the mosquito to deposit its eggs. Since it only deposits them in water, we must cover all pools of water, eliminate all puddles, old automobile tires, tin cans and useless bottles, etc.

Photo caption: The insecticide which is being applied is not dangerous to man or beast; it is malathion (95 percent) and DDT (25 percent). MINSAP is using modern motorized knapsacks, tractors, trucks, Leco pipes, planes, etc. in its fight against the mosquito. Rural areas are fumigated with "cyclones."

EAST GERMANY

INCREASING INCIDENTS OF OCCUPATIONAL SKIN DISEASES REPORTED

Bonn IWE-TAGESDIENST in German No 184, 27 Sep 77 p 3

[Text] As reported by the East Berlin journal DAS DEUTSCHE GESUNDHEITSWESEN (Vol 32, No 39, 1977, pp 1866-1872, article by Dr H.-D. Jung, Bezirk Inspectorate for Health Protection in the Enterprises, Wolgasterstrasse 4, 20 Neubrandenburg, GDR), the sustained increase in job-related skin diseases in the GDR economy has unleashed alarm among medical specialists. The skin diseases, recognized as occupational diseases, reputedly rank second behind injuries caused by noise (21.4 percent in 1975). The journal states that occupational protective measures rather frequently lag behind the rapidly changing production in the GDR economy and are ill-suited to harmful materials. All too often the most modern chemical materials are still being processed as in the days of manual production. In the GDR economy, individual and collective skin protection is allegedly still not a matter of course. Reportedly, the most endangered occupational groups are production workers in the rubber industry, milkers in the cattle industry and, because of the artificial hair dyes, ladies' hairdressers. Moreover, the use of special new oils has repeatedly led in recent years to "epidemic-like diseases" of the skin in various industrial sectors. As urgent measures against the further increase of occupational dermatoses, the journal demands the elimination of harmful materials and substitution of less harmful compounds, the reduction of skin contact through mechanization and automation of production as well as an improvement of registration and control measures by means of occupational dermatological sections to be built up on a priority basis in clinics and in key enterprises.

IMPROVEMENT IN HOSPITAL HYGIENE DISCUSSED

East Berlin BERLINER ZEITUNG in German 1 Nov 77 p 2

[Text] The control of pathogenic organisms is under discussion at a conference which began in Dresden on 31 October 1977, in which about 700 experts from 13 countries are participating. The 3-day discussions include the entire area of hospital hygiene, an essential factor for all health facilities in increasing the quality of medical care.

A comprehensive exchange of experience is taking place on the part of physicians, hygienists, microbiologists, pharmacists, and veterinarians regarding the latest findings in sterilization, disinfection, and antisepsis. They are discussing current tasks in combating the so-called infectious hospitalism, a problem whose solution is considered urgent throughout the world. This is understood to include the transmittal of infections in public health institutions.

In the GDR a great deal of scientific work has been accomplished in this area. This is manifested in a basic hygiene regulation, which is to be effective 1 January 1978, for outpatient and inpatient health facilities. With this decree the GDR public health system will be given a significant working basis for the practice of hospital hygiene. This is the first such provision among the CEMA countries.

EGYPT

STRANGE EPIDEMIC HITS AN EGYPTIAN VILLAGE

Cairo AL-JUMHURIYAH in Arabic 13 Oct 77 p 1

[Text] A strange epidemic spread in the village of Basatin al-Ismailia in Balbis area taking 35 lives and attacking 50 people. The symptoms of this epidemic are a very high temperature and a severe anal hemorrhage. The director of preventive health at the ministry, the general director of health in al-Sharqiyah Governorate and a large group of doctors went to the village in order to establish headquarters for operations to supervise the cases.

It is noticed that most of the deceased had suffered from kidney problems and weight loss. Doctors say that it is very possible that the name of this epidemic is (Walad).

All the victims have been isolated in the hospital of Hamiyat al-Zaqazig in addition to the isolation of the village, the sterilization of all the homes, the organization of a campaign to kill flies and the sending of the victims' blood samples to the Ministry of Health.

Cairo AL-JUMHURIYAH in Arabic 27 Oct 77 p 1

[Text] Dr Ibrahim Badran, minister of health, declared that the strange disease which appeared in Balbis was discovered to be a virus which is carried by mosquitoes or by spraying saliva and kissing.

The minister added that the disease has been isolated and that all the surrounding areas have been sprayed and that not a single death has occurred.

AL-SADAT ADDRESSES MESSAGE TO ARAB DOCTORS SYMPOSIUM

Cairo MENA in Arabic 1317 GMT 1 Nov 77 NC

[President al-Sadat message to the 16th Arab medical symposium, delivered on his behalf by Health Minister Dr Ibrahim Badran, on 1 November]

[Text] Alexandria, 1 Nov--I am happy to welcome you to Egypt and I appreciate the great role which the Arab doctors are playing in the progress of our noble nation.

In this period of our long history we are facing enormous and successive world developments which are unprecedented. The Arab man is facing up to the challenges of development and the problems of growth. He is searching with seriousness and determination for solutions to the residues of the past and the acquisitions of the present in order to scientifically chart his course to the future. He is doing this in an atmosphere of many inter-linked variables, difficult environmental conditions and a constantly changing world. In his struggle for a better life, the Arab man is in dire need of high standards of physical and mental health. Therefore, it is hoped that this symposium in its discussions will focus its light on the means that could bring the Arab citizen to a suitable standard of health.

The cultural challenges facing the Arab citizen can be tackled only by providing the future generations with a high standard of health which will enable these generations to bring about industrial and economic development, to speed this development up and to steer it in a manner that would boost the status of the Arab nation and strengthen its (?freedom).

There is no doubt that the way to this basically depends on providing the highest possible standard of health services to every Arab citizen and making these services available to him in a sufficient degree and at the appropriate time to protect him against disease and to treat him in case he gets sick. We must also have services to enable the citizen to confront the demands of life with the capability and energy available to him if preventive measures fail to protect him against disease or if treatment fails to cure him.

We live in a world still confronted with fear, hunger and disease and which is still incapable of tackling these problems despite its qualified technological and scientific progress.

Over 500 million people are suffering from bilharzia, 300 million from filariasis and 200 million from malaria. Hunger, measles and infantile paralysis still exhaust human resources as indicated by the high rate of infant mortality.

The political concern which has arisen in Africa over drought and protein deficiency brought about by animal mortality and the spread of yellow fever

and the effect of all of this on the health, intelligence and growth of man should be a vivid and stern lesson from which we should benefit when planning for the future so we can escape from current situation in which 25 percent of the world population is consuming 60 percent of the world food production.

In this gloomy picture, the Arab citizen continues to suffer from many diseases which medical technology has brought under control in highly socially and economically advanced states. At the same time, the diseases of development are leaving their imprint on the Arab citizen and as a result medical efforts are also being concentrated on overcoming the health problems brought about by development and growth.

It is really regrettable to see the unusual attention that is being given to contemporary diseases, the machinery and equipment necessary for their treatment that is being procured and the huge institutes specializing in the treatment of these diseases that are being established while the endemic and contagious diseases that exhaust our human resources are not receiving similar attention.

The increasing occurrence of these endemic diseases, the social and economic loss being brought about by sickness as well as the temporary or complete disability or early death brought about by disease are all unacceptable in the late 20th century.

Food shortages continue to pose a serious threat to the health of the Arab man and to cause problems and diseases in mother and child--diseases and problems which could seriously affect the child's physical and mental growth and result in early death.

Childhood diseases and problems are the rock on which the health of future generations will founder. It is regrettable that these diseases and problems continue to represent a large part of our health problem. We have not yet been able to bring them under control in a manner commensurate with our nation's medical resources.

The development of agricultural technology and the advent of modern industry in the Arab world have led to pollution problems and the threat of serious human diseases.

The imbalance between human resources and economic resources in some countries has resulted in population problems--both overpopulation and underpopulation. Medicine has played an effective role in bringing down the death rate and in increasing life expectancy in the fifties but it has failed to control birth, upward or downward.

The technological revolution in the fields of transportation and communication has produced many negative health changes, such as rapid spread of disease throughout the world. A rise in man's aspirations that is not

matched by an adequate increase in production could lead to despair and anxiety, in some classes it had led to the misuse and excessive taking of drugs and to psychological disorders.

The role of medical services and research in preserving the Arab nation's human wealth is vital and essential for its survival, not to mention its progress and development.

The effective performance of this role requires that medical thinking, work and research should stem from the deep-rooted culture of our Arab nation and from our accurate comprehension of the medical needs of our masses and respect for their values and beliefs.

The gap between what is available in knowledge and medical technology is still extremely big, as is the gap between what is available of this technology in the world and what is available to the sons of the Arab nation very big. The only way to bridge this gap is to apply scientific planning to medical services and to carry out research to develop medical work and raise the standard of comprehensive medical services. Priority should be given to the development of medical education in our nation to produce doctors who belong to the Arab culture, who appreciate its value, who respect the Arab nation's beliefs and know its medical needs and who are equipped with capabilities and professions that enable them to meet these needs.

The doctor once was a pioneer of civilization, having his own philosophy, values, knowledge and ethics. Today we are in dire need of this pioneering spirit. In our medical education we have concentrated on the transfer of knowledge and on polishing up capabilities and skills and have totally ignored the essence of vocational education and behavioral science. Medicine is not only a hospital and a doctor, but a service, behavior, sound administration, rational expenditure and healing medicines, God willing.

We want the teacher of medicine to be an example to his student, to live the way his society lives and to see how the great majority of his compatriots live and to feel deep in his heart that his message is to serve man and ease his pains.

The time has gone when health problems were dealt with solely on the basis of the views of doctors. Effective health work now depends on a number of social, engineering, economic and statistical sciences. Medicine has entered the computer age from the standpoint of diagnosis, treatment, planning and administration. We in the Arab world must not lag behind in this field.

The enormous technological leap the world has taken has made it possible to analyze man as a collection of electrical waves and chemical reactions and the atom has entered the fields of treatment and research.

All this, by necessity, requires that medical curricula should concentrate on solving health problems through an analysis of medical, social, cultural and economic changes and not on the purely medical approach to medicine.

This can undoubtedly be achieved by putting the health priorities in the form of comprehensive programs dealing with prevention, treatment and rehabilitation on the level of basic health care and specialized health care, whether in hospitals or outside them.

The health challenges of the Arab world can be tackled only on the basis of a policy integrating health services, the manufacture of medicines and research among the Arab states. Such a policy would make it possible to benefit from the availability of medical cadres in some of the Arab states and the production of medicines, serums and vaccines.

The drawing up of such a policy requires the establishment of information banks in the sphere of health services in order to define the problems and the possibilities of solution. This will also make the availability of such information easier for students and researchers, enabling them to find solutions to environmental problems.

We are very much in need of basic solutions to our health problems. These solutions must come from us and not be copied from others. The correct approach to work in this sphere is work for the building of future generations. We must concentrate on the Arab child.

The Arab nation is the nation of giving and medicine is the profession of giving. We pray God to send us to study with those who have not been deprived of the joy of giving. May God grant you success in your deliberations and make our Arab nation benefit from them. Peace and God's blessings be upon you.

INDONESIA

ANTHRAX STRIKES HUMANS, ANIMALS IN SUMBAWA

Jakarta KOMPAS in Indonesian 14 Sep 77 p 10

[Text] Sumbawa Besar, KOMPAS--Dr Hasman Usman, region head of Sumbawa District, confirmed that an epidemic of animal anthrax has been spreading in the district for the past 3 months. The disease has primarily attacked water buffalo, killing 40 of these animals. Seteluk, Taliwang, and Moyo Hilir subdistricts have been struck.

Hasman Usman told a correspondent in Mataram that two people in Seteluk Subdistrict were dead as a result of the epidemic. These deaths were caused by illegal slaughtering of water buffaloes.

Residents can again eat cattle meat, "provided that the officer in charge of the local Cattle Breeding Office inspects meat from slaughtered animals," he added.

Meanwhile, Sumbawa residents, who normally slaughter animals without permission, are afraid to risk doing so. Residents seek the permission of cattle breeding officials for each slaughter, both of healthy and ill animals.

The animal anthrax epidemic in Sumbawa may be largely due to the greatly weakened condition of water buffalo. Most water buffalo who fall victim to the disease were weakened by the long dry season.

The district government is working with local cattle breeding offices to stem the epidemic with a mass districtwide vaccination program.

MEASLES EPIDEMIC IN CENTRAL JAVA

Jakarta KOMPAS in Indonesian 24 Sep 77 p 12

[Text] Ampenan, ANTARA--An outbreak of measles has killed 60 children in West Lombok since April, including 36 from Cemen village and 14 from Ampenan Subdistrict.

Dr R. Bawadiman, chief of the West Lower Sundas Provincial Health Construction Directorate, said that measles could kill when it led to complications. Dangerous complications include respiratory problems, followed by diarrhea or a fever which will not break.

The doctor said that measles, itself, is not dangerous. Patients should be examined immediately, to avoid complications. Patients should not be exposed. When the red spots disappear and the fever subsides, the patient will recover quickly.

He noted that if a patient's fever does not go down after 5 days, he must be taken to the doctor immediately. There is no question that the measles sufferer cannot be inoculated.

He said that most parents living in the villages in West Lombok will not take children stricken with measles to the doctor. They take these children to the folk doctor because they believe diseases of this type are caused by evil spirits. Cures can come only through the folk doctor's incantations.

Many villagers still act in this fashion because there is a lack of information in the area. Although there are now 56 public health centers in West Lombok, reaching every subdistrict, and 565 polyclinics in villages throughout the West Lower Sundas, the shortage of power and transport prevents the effective spread of information.

Jakarta ANGKATAN BERSENJATA in Indonesian 19 Sep 77 p 7

[Text] Semarang, 17 Sep, ANTARA--Twenty-eight children have died from measles in the village of Mulyosari, Sukorejo Subdistrict, Kendal District, Central Java. About 272 other children suffering from measles have sought treatment in Sukorejo Hospital.

The region head of Kendal, Dr Abdussaleh, surveyed Mulyosari, a small village about 5 kilometers southwest of Sukorejo, and furnished advice for overcoming the epidemic, including mass inoculation, spraying homes with DDT, etc.

In a 17 September ANTARA release, the Kendal District Public Relations Office stated that the epidemic began during the past month, and spread quickly, usually attacking children under 12. Children with weak resistance who are attacked by the disease will die within a week.

The measles virus causes a contagious disease which causes children to become feverish and develop a skin rash.

UNIDENTIFIED CONTAGIOUS DISEASE

Hong Kong AFP in English 1611 GMT 31 Oct 77 BK

[Text] Jakarta, Oct 31 (AFP)--Twenty-six people in East Gane, North Maluku, died within the last two weeks from an unidentified disease in the area, the EVININGER POS SORE reported here today.

The disease was highly contagious and could kill an affected person in a day. The affected person would suffer first from blood coagulation at the lower part of the body before the fatal attack at the heart.

The disease, still a mystery to modern medical sciences, is known to the people in the area as "Bala-Bala." The traditional treatment for such a disease was to bleed an affected part to let the coagulated blood out.

ITALY

EUROPEAN CONFERENCE ON PREVENTIVE MEASURES AGAINST RABIES

Rome L'UNITA in Italian 31 Oct 77 p 5

[Excerpts] Experts from six European countries were present at the Bolzano conference. Rabies, which presumably had been conquered 4 years ago, has reappeared in Italy. Vaccination is the only prevention. This infectious disease is widely spread by the red fox and each year 3,000

head are destroyed in Alto Adige alone. Rabies is a sickness which is still a great threat to us. This contagious disease, which had disappeared in Italy in 1973 (in Calabria) reappeared last February in Alto Adige. Eighty centers of infection were discovered in the province of Bolzano and the danger exists that the epidemic will spread from the Aurina and Pusteria valleys; this rabid front advances about 50 kilometers per year and it will reach Bolzano if we are not successful in stopping it within the next 2 years.

In order to study this phenomenon, the foremost Italian, German, Austrian, Swiss, French and Yugoslav experts met in Bolzano for 3 days primarily for the purpose of establishing a common international strategy. This European conference on "wild rabies" organized by the Autonomous Alto Adige Province, with the collaboration of veterinary associations, and zooprophyllactic institutions, enabled the various doctors, veterinarians, health officers, gamekeepers, who had convened in Europe for the first time, to examine rabies and determine the preventive and curative treatment for infections, because it is also of great concern to man.

Twenty thousand people are vaccinated every year in Italy, and 1,500,000 in the entire world.

What solutions can be found in order to face this situation? During the conference many of the chairmen were in agreement in acknowledging that compulsory vaccination of domestic animals could be one of the most effective and immediate measures to be taken. This is not enough. The problem is not only to study a strategy for the eradication of an epidemic, but to control it; and only on an island could the total eradication of rabies be accomplished. Complete and total extermination of the foxes--as was proposed by some--is not feasible. Vaccinating not only domestic animals but producing more effective vaccines for humans was given consideration, as well as immunization of the foxes by placing morsels containing antirabic vaccine in the burrows. This problem is not easily solved. However, the above method could be found more effective than extensive destruction through hunting, or using poison or introducing gas into the burrows and would receive the approval of naturalists and animal protective associations.

In this regard Luigi Boitani, national representative of the World Wildlife Fund declared "that it is not by the indiscriminate destruction of the fox that rabies can be eradicated but by the control of the fox population and national coordination of zooprophyllactic measures and would prove much more effective in halting the contagion." The problem therefore is not only a health but also an ecological problem. More adequate knowledge of the phenomenon could safeguard not only human health, but also the faunal heritage of the country.

"Today there is a dearth of means," declared Prof Adriano Mantovani, director of the Institute for Infectious Diseases in Bologna, "if the

zooprophyllactic institutes are not furnished with proper legislation and sufficient sustenance, a paralysis of the services capable of fighting infectious diseases such as rabies, will ensue."

In this connection it is appropriate to point out that already in the last few days, the first regional action was taken in Veneto for the creation of an antirabic service.

KENYA

THREAT OF MALARIA IN COASTAL, WESTERN AREAS

Lusaka TIMES OF ZAMBIA in English 10 Nov 77 p 2

[Text] Visitors to Kenya's coast and western parts have been warned of a high risk of contracting malaria unless preventive medicine is taken prior to departure for East Africa.

The warning was given by the Kenyan high commission to Zambia in a memorandum to all airlines and travel agents to help assist in the dissemination of this information.

The memorandum, signed for the high commissioner by Mr John Njiru, says there has been a number of cases of malaria reported in Europe and America in persons who have visited Kenya mainly on holiday.

In some cases the disease has been very severe and took a long time before being diagnosed, thus leading to serious consequences.

The memorandum says that with increased tourism in Kenya, the government decided to warn visitors of the risk of contracting malaria.

The risk of contracting the disease was particularly high for visitors to the coast and western parts of Kenya.

MALAYSIA

MALARIA INCIDENCE DOWN IN PAHANG

Kuala Lumpur NEW STRAITS TIMES in English 5 Sep 77 p 13

[Text] The number of malaria cases in Pahang has dropped from 8,314 in 1972 to 1,186 during the first eight months of this year.

Only three deaths resulting from the disease were reported during the eight-month period compared with 29 during 1972.

This is the last year in the five-year malaria eradication campaign launched in the State in 1972.

These figures were displayed by the State Medical and Health Services at an exhibition on the development of the State during the past 20 years which ended here yesterday.

However the threat of malaria still existed as a result of the rapid land development and among the Orang Asli in the interior areas.

The campaign involved the spraying of DDT on the walls of houses, detection and treatment for those suffering from the disease and the covering up of disused ponds and other breeding places of mosquitoes.

Kuantan, Pekan, Temerloh, Mentakab, Jerantut, Kuala Lipis, Bentong, Raub, Gambang, Frasers Hill, Mengkarak, Triang, Benta, Ringlet and Tanah Rata were listed as malaria infested areas.

IMPROVEMENT SEEN IN RURAL HEALTH SERVICES

Kuala Lumpur NEW STRAITS TIMES in English 10 Sep 77 p 14

[Editorial]

[Text] Preventive health and primary health care must be the main thrust of the Health Ministry's ambitious programmes to improve rural health since this would be the best way of getting maximum returns from our limited funds and limited skilled medical manpower available. It is fitting therefore that one of the Ministry's major Third Plan programmes is a two-pronged plan to help eliminate water-borne disease common in rural areas by providing the basic preventive facilities of clean water and better sanitary conditions to at least 50 per cent of our rural folk. Yet these alone will not be enough. Given the fact that much of the disease and poor health among rural people can be traced to ignorance, prejudice or misconceptions about basic health rules, a great deal of our rural health programmes will also depend on the efficient deployment of, and the guidance role played by, medical personnel.

The Third Plan takes cognisance of these vital pre-requisites: It emphasises the conversion of health sub-centres into main centres and midwife clinics into community clinics with a concomitant upgrading of trained staff. Plans also include nutrition programmes and the building of 15 new health centres and 177 community clinics (in Peninsular Malaysia). The need for expanded services cannot be over-emphasised. Whereas predominantly urban populations such as that of Selangor have one doctor per 2,000 people, essentially rural populations such as Kedah's have only one per 10,000 people. Whether our Third Plan targets will be met is problematical: Shortages of doctors and other personnel such as health

inspectors, will influence the outcome. But there has been significant progress over the years. Rural infant mortality, for one, is down to 3.5 per cent in 1975 (it was 7.6 per cent in 1957); the maternal mortality rate now is less than half that for 1957. These improvements clearly reflect the changing face of Malaysia's rural health service.

MOZAMBIQUE

OUTBREAK OF BUBONIC PLAGUE NOW UNDER CONTROL

Luanda NOTICIAS in Portuguese 22 Oct 77 p 1

[Text] A communique from the National Directorate of Preventive Medicine, issued yesterday, reports that between 19 and 26 August bubonic plague appeared in the district of Mutarara (Tete Province). It appeared for the first time in Mozambique in October of last year in this same district, in a small village called Cutecha, very close to the border with Malawi.

"This disease is carried by forest rodents but in some cases it can be transmitted to the domestic rat and then to men through the bites of fleas, for which the rats are common hosts.

"It is a very serious disease. Not only may it be fatal to most patients if not properly treated immediately, but it may very quickly become epidemic and very difficult to control.

"As it is a rare disease and thus unfamiliar to people, and as it develops rapidly, sometimes leading to death within a few days if not treated, it can progress very quickly if its victims do not present themselves as soon as possible to the local health agencies where the necessary measures can be taken to combat it."

The communique adds that "in the present case the first victims delayed too long in getting to the health units, which might have prevented some fatalities.

"After the disease was diagnosed in these first cases, the provincial health director, the preventive medicine technician, health officers and an agent for contagious diseases immediately went to Mutarara and rapidly attacked the problem, in order to prevent the disease from spreading to other locales.

"At that locale it was verified, however, that the disease had been silently spread by the forest rodents to a broad area of the so-called Island of Inhangoma, where a number of foci were observed."

Because it is a disease which must be reported internationally, WHO was notified, in accordance with the International Health Regulation.

The following measures were taken:

Search for victims, their confinement in isolation and treatment;

Administration of preventive medicine to the people in the affected areas;

Treatment of dwellings and storehouses with insecticide, to eliminate the fleas that transmit the disease;

Establishment of health control of the movement of people and goods to prevent the transport of fleas or infected rats within or outside the area;

Treatment of railways (in Mutarara, Cena and Caia) and highway transport vehicles with insecticides.

"With the adoption of these measures, in which not only the local political and administrative organs but the people of the area collaborated, it was possible to control the disease, and not a single case has been reported since 30 September.

"During the epidemic period 97 cases were reported, with 14 deaths. In cases where the patients were not taken promptly to the health units, the patients who were admitted all died a few hours later, which demonstrates the importance of immediate treatment of the disease.

"It is also noted that not a single case occurred among those who took preventive medicine before the disease appeared.

"Although the epidemic is completely under control, the measures that were undertaken will be maintained, in another phase which will see the initiation of a campaign against the rats that constitute the major focus of infection.

"There will also be a continuing education campaign among the people over a long period, so they will be completely familiar with the disease, enabling them to detect any case and to involve the health agencies immediately, thus preventing epidemic outbreaks that are hard to combat and unnecessary loss of lives, because the necessary means for immediate and effective action exist in the area."

It is noted that the disease is reappearing in many African countries, because of poor environmental conditions.

NEW ZEALAND

TYPHOID OUTBREAK

Auckland THE NEW ZEALAND HERALD in English 26 Sep 77 p 1

[Text] Gisborne--A friendly Gisborne street is paying a high price for its neighbourly qualities--it is the centre of a typhoid outbreak which has put eight people in hospital.

Only one case, a small boy, has so far been confirmed as having typhoid. He is reported to be quite ill, while three other people have been listed as suspected cases.

Health authorities will not name the street, but feel that the social interaction between friendly families has made the source of the disease harder to trace.

Four other people who were admitted to hospital have been discharged.

A Health Department representative, Dr V. D. Davidson, said investigations were still proceeding and there was no need for the general public to be alarmed.

Auckland THE NEW ZEALAND HERALD in English 30 Sep 77 p 4

[Text] Gisborne--There are now three confirmed cases of typhoid and three suspected cases in Cook Hospital and a strong suspicion that the source of the infection was a meal of raw shellfish.

The acting medical officer of health, Dr V. D. Davidson, said all the sufferers had eaten together at a meal where raw pipis had been served.

She said it was not advisable to eat pipis raw unless people were absolutely sure they had come from clear, unpolluted water. It was especially inadvisable to take them from the mouth of a creek.

She said the public should be warned to read carefully any notices about taking shellfish.

The three confirmed cases are a two-year-old boy, a six-year-old girl and a teenage girl. The three suspected cases, also in hospital, are a four-year-old boy and two young men.

Dr Davidson said the situation was still being watched carefully. No more cases were expected, but there was always the possibility that someone else had been infected by one of the sufferers.

Christchurch THE PRESS in English 8 Oct 77 p 6

[Text] Gisborne--Two more cases of typhoid have been admitted to Cook Hospital. They are two women suffering from secondary infection through close contact with the first case, a young boy, when he was very ill.

There are now five other cases of typhoid (primary infection) in hospital. They are believed to have been caused by eating a meal of pipis.

The Acting Medical Officer of Health at Gisborne (Dr V. D. Davidson) said that some secondary infection could be expected. It was likely there would be more cases.

INFECTIOUS HEPATITIS REPORTED

Christchurch THE PRESS in English 19 Oct 77 p 14

[Text] Two cases of infectious hepatitis were among the four cases of suspected notifiable diseases reported to the Health Department for the week ending October 15.

One case each of leptospirosis and bacillary dysentery were also reported.

A total of 51 new cases of venereal disease were seen at the Christchurch Venereal Disease Clinic during September.

PERSISTENCE OF TUBERCULOSIS DEPLORED

Wellington THE EVENING POST in English 3 Oct 77 p 1

[Text] The persistence of tuberculosis in New Zealand was a disgrace, the Director-General of Health (Dr H. J. H. Hiddlestone) said today.

Speaking at the opening of the annual meeting of the New Zealand Federation of Tuberculosis Associations in Wellington today, Dr Hiddlestone said Tb should be a rare disease.

For 25 years its treatment had been understood and readily available.

A force of doctors and nurses, backed up by voluntary agencies, was available and the Health Department had been running a detection service backed up by the hospitals.

Twenty-five years ago many people believed Tb would be a clinical curiosity in the 1970s and it should now be a rare disease.

There had been significant progress in its eradication. In 1943 there were 142 cases for every 100,000 people in the population. In 1965 the number was down to 35, in 1975 it was 18.6 and in the last year it was down to 16.6.

Although these figures looked presentable it was not good enough, said Dr Hiddlestone.

A reduction in incidence through much of the country had been offset by increases in Auckland and Wellington.

This adverse trend, he said, was related to the influx of Polynesians.

In Auckland 56 percent of cases were new immigrants while in Wellington they accounted for 39 percent of cases.

To counter this New Zealand was giving assistance to the Pacific Islands, there had been a tightening of screening procedures for new immigrants and mobile chest X-ray services were concentrating on areas where the incidence of Tb was high, he said.

The annual report of the Federation of Tuberculosis Associations states that national figures indicated that tuberculosis showed little sign of retreating.

"The total number of cases for 1976 was 608--a drop of only 60 on the previous year.

"One-hundred-and-seventy-three were under the age of 15 and although most, if not all, must respond well to adequate treatment there are some who suffer from temporary removal from home to hospital, loss of schooling and even perhaps the effects of tissue damage caused by the disease.

"Of the total number 243 were European, 203 Maori and 133 Pacific Islanders.

"The Department of Health has produced much educational matter but dissemination is not always as wide as it should be.

"A serious source of infection in New Zealand...is the middle-aged or elderly male European who lives alone or nomadically occupies boarding-houses, who usually smokes and drinks to excess and whose nutrition is poor.

"At any one time, one third of the active cases of tuberculosis come from this group and these people are greatly in need of help," the report said.

NIGERIA

WHOOPING COUGH OUTBREAK

Kaduna NEW NIGERIAN in English 22 Oct 77 p 3

[Article by Yaro Ali Maidugiri, Bauchi]

[Text] Whooping cough is reported to have broken out in the Hardawa District in Misau Local Government area of Bauchi State. So far, six persons are reported to have been killed by the disease.

This was contained in a press release issued by the Misau Local Government Information Officer, Malam Mohammed Hammayo, recently.

The release quoted the Local Government Councillor for Health, Alhaji Aliyu Mohammed, as saying that more than 40 people have also been admitted into the Misau General Hospital for treatment.

The councillor, according to the release, had appealed to all the people in the area to report immediately any case of the disease to the nearest dispensary for urgent attention.

Another report from the area said that well over 7,000 Naira had been spent on community development projects, this year.

The report said that among the projects executed were construction of culverts, dispensaries and U.P.E. classrooms.

Lagos DAILY TIMES in English 22 Oct 77 p 2

[Text] Whooping cough has claimed six lives in a local government council area.

According to a report from Misau Local Government Council area of Bauchi State, 40 other patients are being treated for the same ailment at Misau General Hospital.

The supervisory councillor in charge of health for the area, Alhaji Mohammed Aliyu, Waziri Jalam, on Thursday appealed to the people of the area to report promptly to the authorities suspected cases of whooping cough.

LEPROSY TREATMENT

Kaduna NEW NIGERIAN in English 22 Oct 77 p 3

[Text] About 21 leprosy assistants drawn from almost all the sixteen local government areas in Bauchi State are now attending a three-week course on leprosy.

This was announced by the Liaison Officer of the Ministry of Health, Dr. N. H. Sajid in the state capital recently.

Dr. Sajid said the course which is organised by the Ministry of Health was aimed at grooming the leprosy assistants on the prevention and treatment of leprosy.

He said that lectures were being handled by Dr. Des Flnes.

Earlier, the commissioner for Health, Alhaji Yunusa Kaltungo, in his speech at the opening ceremony of the course, enjoined the participants to pay attention to what they would be taught.

Kaduna NEW NIGERIAN in English 29 Oct 77 p 3

[Text] About 5,772 leprosy patients registered at Nassarawa Local Government area of Plateau State, are now being treated in 47 clinics in the area.

Already, 1,052 leprosy patients have been discharged from the various clinics in the area.

A release issued and signed by the Secretary to the Nassarawa Local Government Council, Alhaji Shehu Mamman, appealed to the communities to report any suspicious symptom of leprosy for early treatment.

Commenting on the issue, the Assistant Rural Health Superintendent for Nassarawa Local Government, Malam Ramahan Asabangu emphasised the need for regular attendance by patients and called on them to attend clinics regularly, so as to get rid of the disease.

Malam Asabangu thanked the UNICEF through the state government for providing drugs and transport for leprosy control and services in the area.

After thanking the Nassarawa Local Government Council for participating actively in the exercise, Malam Asabangu said similar measures would be carried out every two years in a bid to eradicate leprosy in the area.

MORE THAN 10,000 CHILDREN BEING TREATED FOR TUBERCULOSIS

Lagos DAILY TIMES in English 10 Nov 77 p 2

[Text] It is now known that over 10,000 children are currently being treated for tuberculosis in Imo State.

The victims are mainly between the ages of 10 and 18.

It has also been revealed that about 90 per cent of persons over 18 years have had some sort of minimal infestation of tuberculosis.

These facts were revealed at Ohafia in Imo State by the principal medical officer in charge of tuberculosis control, Dr Evarist Nwokocha, during the launching of the immunisation campaign against the disease.

PEOPLE'S REPUBLIC OF CHINA

ANHWEI HOLDS CONFERENCE ON PREVENTION OF SCHISTOSOMIASIS

Hofei Anhwei Provincial Service in Mandarin 1100 GMT 1 Nov 77 HK

[Summary] "Anhwei recently held a conference in Hofei on the prevention of schistosomiasis. Those attending the conference analyzed the situation of the schistosomiasis-prevention front in Anhwei and discussed and formulated the tasks for the prevention of schistosomiasis next year and up to 1980. Comrades Wang Kuang-hu and Chao Shou-i, secretaries of the Anhwei Provincial CCP Committee, attended the conference and delivered speeches. Comrade Chao Shou-i also studied the prevention of schistosomiasis with the participants."

The conference held: "The prevention of schistosomiasis in Anhwei has gone through fierce struggles between two classes, two roads and two lines and has won one victory after another. Since 1970, the area over which snails were eliminated in Anhwei has amounted to over 70 percent of the total snail-infested area, and over 70 percent of the sick patients and cows have been cured. However, the interference and sabotage of the antiparty clique of the gang of four and their opposition to the instructions of great leader and teacher Chairman Mao and esteemed and beloved Premier Chou on the prevention of schistosomiasis, seriously affected the schistosomiasis-prevention work in Anhwei."

Those at the conference also exchanged experiences on schistosomiasis-prevention work in Anhwei, analyzed the situation and formulated the tasks for the future. The conference held: "We must make big and rapid progress in the prevention of schistosomiasis. We must mobilize the masses, struggle hard for 3 years and make big achievements. We must fundamentally

eliminate schistosomiasis by 1980." At the same time, they also made specific arrangements for the schistosomiasis-prevention tasks in 1978.

They demanded that the plague-afflicted area actively launch the tasks to eliminate snails and investigate and cure the sickness and actively do a good job of the tasks of "two administrations and five transformations." They also demanded that those localities where schistosomiasis has been fundamentally eliminated draw up plans thoroughly to eliminate schistosomiasis and gradually extend the area of investigation of snails and sickness to areas where the plague is not serious.

RHODESIA

MEASLES EPIDEMIC IN MATABELELAND

Salisbury THE RHODESIA HERALD in English 24 Nov 77 p 11

[Text] Bulawayo--Matabeleland has a measles epidemic and Bulawayo City Council's African isolation hospital at Thorngrove is at full strength coping with a record number of cases.

From July to October--the first four months of this municipal year--1,757 cases of measles from Matabeleland were admitted to Thorngrove Hospital.

The number admitted for the last financial year was 2,405.

The previous highest number admitted to Thorngrove was 1,622 in the year 1974-1975. In earlier years, the number had generally been under 1,000.

The percentage of deaths dropped from 3.6 in 1972/1973 to one percent in 1976/1977. In the first four months of this year the percentage was 1.8 of 923 Bulawayo patients.

"We think the large number of patients being treated now is because children can't be treated at rural clinics and hospitals, many of which have closed as a result of the security situation," Dr E. F. Watson, the council's medical officer said.

Increase

Parents were bringing their sick children into Bulawayo. But the children were not brought to hospital early enough, and this would also account for the increase in recent deaths.

"In a fair number of cases they arrive extremely ill, and little can be done for them," he said. Many children from rural areas were undernourished.

Dr Watson has told the Townships Advisory Board that measles could be prevented "by better spacing of children in families" (family planning) and by taking greater advantage of measles immunisation.

CAMPAIGN ADVOCATED TO STAMP OUT MEASLES

Salisbury THE RHODESIA HERALD in English 25 Nov 77 p 1

[Text] The City Medical Officer of Health for Salisbury, Dr J. C. A. Davies, has called for a national campaign to stamp out measles in Rhodesia.

In an attempt to halt the epidemic which is raging in Matabeleland and, on a smaller scale, in Mashonaland, Dr Davies has suggested that the Government spend an additional \$80,000 a year on measles vaccinations.

Preventable disease was still the country's major health problem, he said. "Measles, with its complications and after effects, will be responsible for about 250 toddler deaths in Salisbury in 1977," said Dr Davies.

A record number of 1,757 cases of measles were admitted to the African isolation hospital in Bulawayo between July and last month.

In Salisbury the epidemic began about 12 months ago and the number of admissions to the isolation hospital had risen steadily, Dr Davies said.

In a three-month period in the city 65 babies had died of the disease. "Eighty-eight children suffering from measles were admitted during the second week of October this year--many of them extremely ill," he said.

An article by Dr Davies appears today on page 14.

Salisbury THE RHODESIA HERALD in English 25 Nov 77 p 14

[Article by J. C. A. Davies, city medical officer of health, Salisbury]

[Text] Measles, with its complications and after effects, will be responsible for about 250 toddler deaths in Salisbury in 1977.

While distinguished and highly skilled heart surgeons are able to transplant hearts from one primate to another and kidney transplants, albeit costly, have become almost routine, it is unfortunately true that preventable disease is still the major health problem of Rhodesia. In the light of recent statements about the high quality of our health service an examination of the measles problem is both appropriate and instructive.

About 300,000 babies are born each year in Rhodesia. At current prices the annual cost of measles vaccine for all of these children at nine months of age would be about \$100,000. The service for administering the vaccine is in normal circumstances widely available.

Malnutrition

The disruption of the rural medical services is a serious set-back but with the present large influx into urban areas vaccination is more readily available to significant numbers of children than under normal circumstances.

What then leads to the very large numbers of deaths from measles? Foremost among many factors is malnutrition and it is obvious from the weight for age of many children that in the rural areas nutritional standards are dropping. This is due very largely to the security situation.

Failure to have children vaccinated is the next most important factor and the reasons for this are many. In all cultures there are taboos and traditions related to infectious diseases and even in very sophisticated communities it is said: "My baby had measles normally."

Failure of the vaccine is not uncommon. The principal reason for this is known to be inadequate storage and transport of the vaccine. Failure rates are undoubtedly increased by fractional doses of vaccine, the potency of which is lowered by failure of the "cold chain." It is likely that malnourished children fail to acquire an immunity more often than healthy ones.

The present epidemic in Salisbury began about 12 months ago and the number of admissions to the isolation hospital has risen steadily. Eighty-eight children suffering from measles were admitted during the second week of October this year--many of them extremely ill. They originate from an area including Mt Darwin and Chipinga, the Honde Valley and Enkeldoorn.

In the annual report for 1976, the City Health Department suggested that the percentage of registered deaths taking place under five years of age was greater in bad measles years. More recently a report from Harari Hospital has shown that the total number of admissions to the paediatric wards was larger in the same years. It is possible that the recent decline in family planning attendances is directly related to the increased death-rate of young children.

Studies of deaths between one and five years of age in Salisbury indicate that the chance of an African child dying is more than 20 times the risk for a non-African child. A follow-up study in which a detailed inquiry has been made into every toddler death over the past three months suggests that in about half measles was the immediate cause or had occurred relatively recently.

Extrapolation from Salisbury figures to give estimates for the country as a whole is risky but suggests that in 1977 between two and three thousand children will die from measles and its complications. In the absence of national registration of births and deaths, it is impossible to prove, disprove or correct this statement.

No. 1 Priority

Since measles is easily preventable by a single injection, it is obvious that a mass campaign to vaccinate every pre-school child would be the answer. Unfortunately this is not possible at the moment for obvious reasons.

The purpose of this article is to suggest that any child for whom measles vaccine is accessible should be vaccinated at once and that for any child brought to Salisbury (or other urban areas where the health services are still functioning normally) measles vaccine is priority number one.

During the three months July to September inclusive 48 toddlers normally resident in Salisbury died. Thirty of these, two-thirds, died of measles. Of these 14 had been vaccinated against measles and half of their mothers were actively family planning. Of the 65 toddlers normally living outside Salisbury who died in the city, 35 died of measles.

It has been Government policy to use one-fifth of a dose of measles vaccine. Several trials have suggested that this produces adequate immunity but none of the trials have been done with the vaccine currently used in Rhodesia. Allegedly the reason for using one-fifth doses is shortage of funds. The additional cost of a full dose would be approximately \$80,000 a year, which may sound like a lot of money. It is exactly one two-hundredth of the net annual revenue budget of the Salisbury group of hospitals (i.e., Harari and the Andrew Fleming).

It is usual to decry hospital statistics as a basis for judging the health of the community. In this instance, both the hospital admission rate and the mortality indicate the overwhelming importance of measles.

If measles is to be eradicated a national campaign is required. It is now nearly 10 years since the Ministry of Health first considered mounting a mass campaign against measles but it is now obvious that what has been done so far, even if done in good faith and with the best will in the world, has not been effective and that public co-operation has not been good enough.

A full dose of potent measles vaccine must be made available, free of charge, for every child between nine months and one year of age.

Every possible agency--Press, radio, television, the health infrastructure, the civil administration and employers of labour, should be asked to impress on every man and woman within their area of influence that measles vaccination is absolutely vital.

SINGAPORE

AIRCRAFT MUST BE DISINFECTED BEFORE TOUCHDOWN

Kuala Lumpur NEW STRAITS TIMES in English 8 Sep 77 p 6

[Text] All aircraft flying into Singapore have to be treated with insecticide before touchdown following the enforcement of the Infectious Diseases (Quarantine) Regulations of August 1.

The regulations were circulated to representatives of various airlines operating here by the Environment Ministry's airport health authority in a letter to them early last month.

Airline operators failing to comply are liable to a fine not exceeding \$1,000 for the first offence.

In a recent circular to its cabin crew, Singapore Airlines told its staff that disinfecting should be done at the port of departure before Singapore.

The amount of aerosol used to disinfect the cabin of each aircraft type is one can for Boeing 737 jets, two cans for B707 or B727, eight for B747 and five for DC 10 aircraft.

The airline also advised its crew to retain used aerosol cans for inspection by health officers.

SOUTH AFRICA

INCIDENCE OF CORONARY DISEASE REPORTED

Johannesburg THE STAR in English 2 Nov 77 p 25

[Text] South African whites--men and women--have the dubious distinction of having a much higher overall incidence and mortality rate of coronary heart disease than any other high-risk population.

Statistics show this is particularly marked in the younger age group--25 to 34 years. In the older people the graphs tend to merge.

These details were provided by Professor Cyril Wyndham, of the Medical Research Council's Institute for Biostatistics, at the conference yesterday.

He compared the figures for the United States, Finland and Sweden with those of South Africa.

For example, the risk of fatal heart attacks in white men between 25 and 34 years in South Africa was more than twice that in the US, three times as high as in Finland and seven times as high as in Sweden.

He compared the incidence rates in other countries which, like South Africa, were originally populated by immigrants from Europe.

He concluded that it was the lifestyle--mainly the results of affluence--in the new country that was mainly to blame for the high mortality rates which, in all cases, were higher than those of the mother countries.

Why is coronary heart disease common in whites yet rare in those urban blacks who are apparently exposed to the same risk factors as whites?

This was the "enigma" which Professor Harry Seftel, professor of African medicine at Wits, tried to answer yesterday at the conference.

The disease was indeed rare among blacks, he said. But few of them had as yet penetrated the barrier of affluence beyond which hardening of the arteries--the usual precursor to coronary heart disease--was inclined to take place.

Their blood cholesterol levels were significantly lower than that of whites, the incidence of diabetes was low. Compared with whites only about half as many smoked and they had not been smoking all that long and as heavily. In addition, most blacks did a lot of hard physical labour.

The only risk factor to which many blacks were exposed was high blood pressure.

"So the enigma is really a myth," Professor Seftel said. "Add the balance sheet and I am not surprised that coronary heart disease is still uncommon in our black population."

THAILAND

ALARMING INCREASE IN TYPHOID CASES

Bangkok BANGKOK WORLD in English 3 Nov 77 p 2 BK

[Text] The number of typhoid cases has increased alarmingly, breaking an all-time record, Dr Manatsawi Unhanan, director-general of the Communicable Diseases Control Department, said this morning.

Dr Manatsawi told the WORLD that within the first 10 months of this year a total of 9,194 persons, ranging from 5 to 15 years of age, had contracted the disease and 60 of them had died.

He estimated the number of cases would rise to 10,000 by the end of the year.

From January to October the cases reported were mostly in the provinces and close to each capital [as published], such as Nakhon Pathom, Samut Sakhon, Samut Songkhram, Chon Buri, Ayutthaya and Ang Thong, he said, and there were some cases reported in Bangkok too.

Dr Manatsawi said that during the past 7 years the number of typhoid cases had never exceeded 3,000 per year.

To arrest the spread of the disease, the director-general suggested that all food shops be reminded to take special precautions when serving food to customers.

TURKEY

RAPID SPREAD OF MALARIA

Istanbul CUMHURİYET in Turkish 23 Oct 77 p 7

[Text] The Council of Ministers has announced that malaria has spread rapidly in the southern and southeastern regions. In a Council of Ministers decision, contained in day before yesterday's issue of the OFFICIAL GAZETTE, it was proposed that because "malaria is spreading rapidly in the southern and southeastern regions despite all precautions taken against it and because it has reached a level where it will affect the general lifestyle" all domestic and foreign institutions should cooperate in a campaign against malaria.

VENEZUELA

NATIONAL VACCINATION PROGRAMS IN PROGRESS

Caracas EL NACIONAL in Spanish 21 Jul 77 Sec C p 13

[Article by Jairo Pardey Arrieta]

[Excerpt] Measles and chickenpox continue to be childhood afflictions despite reduction of infection and mortality rates by means of vaccination.

In some Third World countries, these campaigns have failed, according to Dr Hafdan Mahler, the director general of the World Health Organization.

Dr Mahler said, "It's tragic that vaccination, one of our most effective ways of practicing preventive medicine, is still not within reach of the world's entire population of children. Within the last 50 years, vaccination has made it possible to achieve notable success in many countries in the fight against diphtheria, whooping cough, chickenpox, infantile paralysis and measles. In contrast, it is estimated that some 80 million children are born in the developing world each year, and they do not receive the protection they need."

Neither the public nor health professionals realize fully the number of victims, between those who fall sick and those who die, caused by these diseases. Nor do they realize how effectively the disease can be combated by vaccination.

Health services do not maintain sufficiently close contact with mothers to be able to administer suitable vaccines to children at the proper ages.

The technical needs of a national vaccination program demand familiarity with planning, administration and practical supervision, which the health services have not acquired.

These opinions are supported by pediatricians and health administrators, who agree that it is necessary to improve the systems delivering health care in order to insure that children and mothers receive immunization along with other regular, effective services. Also, those systems should be extended to reach rural populations and the marginal sector of the urban population.

Infectious diseases peculiar to early childhood, among them measles, chickenpox, rubella and infantile paralysis, are ranked by health authorities as fourth among the 10 principal causes of death in the country.

The figures for 1975 were the following:

Measles: 15,275 [sic] cases, 7,739 of them males, and 7,563 females. There were 497 deaths. Maracaibo, with 3,426 cases, including 109 deaths, had the most victims. Caracas (including foreign parishes) was next with 1,549 cases, including 69 deaths; San Felix (Bolívar state) with 1,489 cases, including 24 deaths; and Valencia, with 816 cases, including 30 deaths.

Chickenpox: 4,719 cases, 2,339 of them males, and 2,380 females. Metropolitan Caracas had the most, with 878 cases, including 4 deaths. Maracaibo, with 868 cases, including 4 deaths, followed; and Valencia (Trujillo state) was next with 358 nonfatal cases.

Rubella: 2,148 cases, 939 of them males and 1,209 females, including 2 deaths. Geographical distribution was the following: Caracas (including foreign parishes), 642 cases, including 2 deaths; then Maracaibo, with 262 nonfatal cases; and Coro, with 114 nonfatal cases.

Epidemiological studies have shown that these three communicable diseases primarily attack the age group which consists of babies up to 4 months old.

Caracas EL UNIVERSAL in Spanish 14 Oct 77 Sec 2 p 19

[Text] The Ministry of Health, together with education officials, is adopting measures to require vaccination of primary students.

In the Sucre District of the state of Miranda, it is required that every school, in order to obtain health officials' permission to operate, provide evidence that its students have been immunized with both three-way and antimeasles vaccines.

In this way, school officials and teachers are forced to demand proof of vaccination, which will contribute significantly to a reduction of the incidence of communicable diseases that can be prevented by vaccination.

Dr Jose Rafael Mendoza, assistant epidemiologist for program area number five, said that this measure, along with the systematic vaccination campaign carried out by the SAS [Ministry of Health and Social Welfare], is succeeding in reducing the incidence of such diseases as measles, whooping cough, tetanus and diphtheria.

At the same time, considerable cooperation from officials of public and private schools was needed to effectively carry out the measures adopted, which are benefitting the student population.

Caracas EL UNIVERSAL in Spanish 31 Aug 77 Sec 2 p 11

[Text] A total of 166,553 children in the Federal District and the Sucre District in the state of Miranda have received both three-way and measles inoculations during the first stage of the campaign carried out by the Ministry of Health and Social Welfare between 1 and 12 August. The results of the campaign, according to this figure, have been satisfactory.

This was reported by Dr Isidro Toro Alayon, acting commissioner general of health, who described the first stage of the campaign, implemented by SAS to protect children susceptible to such preventable diseases as measles, diphtheria, whooping cough and tetanus, that is, children between the ages of 2 and 35 months and between 9 and 35 months [sic].

Dr Toro Alayon stated that during the first 2 weeks of the first stage of the campaign of combination and measles inoculation in the metropolitan area, a high percentage of children was vaccinated. According to figures given the General Health Commission by the headquarters of the Health Program Areas, 71.1 percent received measles vaccinations and 53.6 percent

received the combination vaccination against tetanus, diphtheria and whooping cough.

The acting commissioner general of health said that during this first stage, 92,581 children were given the combination inoculation and 73,972 received the measles inoculation, for a total of 166,553 children [sic].

Dr Toro Alayon said that the second stage of this campaign will be carried out from 5 to 16 September, with the second dose of only the combination inoculation being administered, the single required measles immunization having already been given. The third and final dose of the combination vaccine will be administered between 3 and 14 October.

The acting commissioner general of health said that health officials believe that the results of this first stage of vaccination in the metropolitan area have been satisfactory. Together with the figures for routine immunization and the figures to be obtained at regional branches, these results can provide a sense of the coverage of the national vaccination program organized by the SAS.

Caracas EL NACIONAL in Spanish 18 Oct 77 Sec C p 9

[Text] The dedication ceremony has taken place at the "Rafael Rangel" National Institute of Hygiene for a modern unit capable of bottling, capping, labeling, packing and cold storage of combination vaccine, vaccines for tetanus, smallpox, fevers and typhus, as well as rabies vaccines for humans and for dogs.

The unit was dedicated by Minister of Health and Social Welfare Antonio Parra Leon. It occupies 200 square meters and has a sterile air-conditioning system, which insures that neither the atmosphere nor the vaccines will be contaminated.

Built and equipped at a cost of 750,000 bolivares, it will triple vaccine production when it goes into operation.

Dr Solon Suarez, director of the "Rafael Rangel" National Institute of Hygiene, said that the unit is equipped for automatic bottling and labeling.

Dr Suarez stated that the minister of health had dedicated a New Brunswick fermenter with a capacity of 24 liters, to be used in making vaccines by modern methods of culture, under the guidance of an expert from the Lister Institute in London who is a specialist in bacterial vaccines.

Caracas EL NACIONAL in Spanish 15 Oct 77 Sec 2 p 8

[Text] About 60,000 inhabitants of the Amazonas Federal Territory will receive the tuberculosis vaccine BCG, in accordance with an agreement reached at a meeting of representatives of the headquarters of the SAS [Ministry of Health and Social Welfare], of the Territorial Commission and of various sectors of the territorial community.

Dr Manuel Adrianza, chief of the Department of Tuberculosis and Pulmonary Diseases of the SAS, outlined elements of the program following the report on an evaluation made regarding the benefits of vaccinating people of all ages in the Amazonas Territory. The evaluation was made by a doctor trained in the Department of Tuberculosis, and [his report] was approved because of the sickness rates, the high infectiousness and the protection needed by inhabitants of the territory. Another factor is the large number of people living in a rural environment. The doctor who made the evaluation has suitable knowledge of the highly scientific methodology entailed in choosing the size and makeup of the population sample. In this way, the population to be covered has been defined in terms of age and size of lesion, and consequently it will be possible to determine the level of protection and the existence of complications. This information is important in evaluating the technical and operational effectiveness of the vaccination teams, as well as the quality of the vaccine used.

Dr Adrianza stated that coverage by the antituberculosis vaccination campaign in Amazonas ranged from 51.2 percent to 83.1 percent [of the population in a given area]. Between 56.8 percent and 87.5 percent of the people were examined. The percentage of people with vaccination lesions ranged from 53.8 for those younger than 1 year to 89.5 for those aged 10 to 14. In addition, the size of lesions checked is considered satisfactory for the level of protection needed.

Caracas EL NACIONAL in Spanish 3 Sep 77 Sec C p 3

[Excerpt] Venezuela set limits today on issuing and requiring international smallpox vaccination certificates.

The measure, which was announced by Jose Manuel Padilla Lepage, director of public health for the SAS [Ministry of Health and Social Welfare], was adopted because it is unlikely that the disease will be introduced into America.

The SAS official stated that smallpox is on the verge of being eradicated throughout the world, with the only remaining infected areas being Ethiopia, Kenya and Somalia, the last named still reporting cases, according to epidemiological bulletins of the World Health Organization.

Because of that, some controls will be continued, especially for people who have been in countries where the situation persists.

Dr Padilla said that the SAS has made its decisions based on the world-wide smallpox situation and taking into account resolution WHA-2852 of the World Health Assembly, held in May 1976, and resolution XXXIV of the 24th Executive Council of the Pan-American Health Organization, held in October 1976, which recommended to member states, among them Venezuela, that they require the international smallpox vaccination certificate only from travelers who have visited an infected country during the previous 14 days. The SAS decisions were:

1. From now on, to require the international smallpox vaccination certificate only of travelers who have been in infected countries during the 14 days preceding their arrival in Venezuela.
2. Not to require the certificate of Venezuelans and foreigners arriving from noninfected countries.

Ministry officials assigned to ports and airports for epidemiological control will simply ask travelers for their passport in order to ascertain that they have not visited infected countries during the 14-day period; and the Division of Epidemiology will keep them provided with up-to-date information about countries that should be considered infected.

From this date on, international smallpox vaccination certificates will be issued only to Venezuelans and foreigners traveling to countries that require them.

DISEASES CAUSED BY AFTEREFFECTS OF FLOOD

Caracas ULTIMAS NOTICIAS in Spanish 29 Aug 77 p 43

[Excerpts] Pestilence, mud, poverty--all are intermingled with the stricken families of the "Valmore Rodriguez" district. Nine days after the area's disaster, the people are still waiting to be relocated.

The area is polluted. Most of the children are sick. Gastroenteritis, influenza, and scabies have already attacked the children, who have had to endure the rigors of bad weather, hunger, and thirst for more than a week.

The entire "Valmore Rodriguez" area was devastated. Chaos prevails throughout. The water that is used in the area has been declared to be unfit for human consumption. That is why people appease their thirst with soft drinks.

Caracas TRIBUNA POPULAR in Spanish 2-8 Sep 77 p 32

[Text] Several telephone calls were received in our editorial office to inform us that the children of Caricuao are suffering from gastroenteritis.

A resident of Ruiz Pineda called to say that while the Ministry of Health was telling the press that there was no danger of an epidemic, her two children were taken to Perez Carreno Hospital. More than 12 mothers, accompanied by minor children who also had symptoms of gastroenteritis, were in the waiting room.

The residents contend that the children's sickness is caused by the dust that comes from the disaster area.

YEARLY APPEARANCE OF 5,000 TUBERCULOSIS CASES

Caracas EL NACIONAL in Spanish 6 Sep 77 Sec C p 4

[Excerpts] Every year 5,000 new cases of tuberculosis appear. According to Dr Fernando Adarmes Perez, pneumonologist at the "Angel Vicente Ochoa" center of the IVSS [Venezuelan Social Security Institute], the cases are caused by the socioeconomic and cultural conditions of our people.

"It is a disease that is related to undernourishment, overcrowding and huts."

And the Social Security doctor points out that, even though tuberculosis has ceased to be a public health problem because means of controlling it are now known, it is a pathology that requires the special attention of competent social organizations.

He said that "the 5,000 annual cases require timely checking and treatment. That is why it is most important for Social Security to check the entire Venezuelan population."

The treatment presently utilized to control the disease is based on two stages of medicine, medicines that are easy to take, and which can be taken orally on a daily basis for a period of 6 months to a year, without side effects.

HEPATITIS OUTBREAK IN TACHIRA

Caracas EL NACIONAL in Spanish 22 Oct 77 Sec 2 p 23

[Excerpts] San Cristobal, 21 Oct, INNAC--An outbreak of hepatitis is attacking children who live in two local urban areas, according to the private medical sources who have treated the majority of cases.

Exact figures concerning victims of the virus have not been established, because most of the cases were not examined at the public assistance center. The residents of the two above-mentioned urban areas have a certain level of income that permits them to obtain private medical attention at special clinics and dispensaries.

All heads of families have been alerted to the characteristics of the disease, so that they may immediately check their children.

VENEZUELAN ROLE IN MEDICAL RESEARCH CONFERENCES

Caracas EL UNIVERSAL in Spanish 24 Sep 77 Sec 2 p 8

[Text] Dr Simon Munoz Armas, who for many years has made special study of infant heart disease and who is now president of the Cardiology Society, will depart on 1 October to attend the 15th International Pediatrics Congress, to be held in New Delhi, India, from 23 to 30 October.

Distinguished pediatricians from the whole world will attend the event as well as specialists in other branches of infant medicine, such as cardiologists, endocrinologists, hematologists and oncologists.

Dr Simon Munoz Armas has been invited to take part in the International Pediatrics Congress to be a member of the symposium on infant heart trouble.

Dr Munoz Armas has been working on research and prevention in the field of rheumatic heart disease for several years. Recently he published his book "Rheumatic Fever and Rheumatic Heart Disease," which won him the Luis Razetti national prize for medicine in 1976.

Presently Dr Munoz Armas is director of the research and prevention unit for rheumatic fever at Central University of Venezuela (UVC) and director of the cardiovascular disease department of the Ministry of Health and Social Assistance.

Also he has served as president of the Pan-American Study Committee for Study and Prevention of Rheumatic Fever of the Cardiology Society.

Appearing at the event with Dr Munoz Armas will be Dr V. Padmavati of India, Dr Angelo Taranta of the United States and Dr Gustavo Berry, head of the cardiology division of the Children's Hospital of Buenos Aires, Argentina.

Speaking of the importance of this scientific meeting, Dr Munoz pointed out the value of exchanging experiences among specialists and investigators from different continents, because the varieties of experience in various latitudes of the world is most instructive.

For example, while in nations like the United States mitral stenosis is rare among children and infants, among ourselves in Latin America it occurs with a certain frequency and a moderate percentage of cases require surgery at young ages, from 10 to 15. In Asian nations, in contrast, mitral stenosis among infants and children is quite common and a serious, significant problem, such as in India, Pakistan and nations of the Middle East and North Africa, such as Iraq and Egypt.

He said that the cooperative study now being carried out in seven Latin American nations, including Venezuela, under the auspices of the Pan-American Health Organization, with the goal of setting up a pilot program for secondary prevention of rheumatic fever and rheumatic heart disease, constitutes an experience which specialists in this field from the nations of Asia, such as India, want to know about in detail. The rheumatic fever program at the cardiovascular disease department of the Ministry of Health and Social Assistance is actively involved in the cooperative international project, which will hold a third annual evaluation meeting in Lima, Peru in November 1977.

Other heart-related topics which will be discussed at the 15th International Pediatrics Congress are new developments in surgical treatment of hereditary heart diseases and pediatric aspects of prevention of arterial hypertension and coronary cardiopathy. On the last point, studies are under way in Venezuela, through the cardiovascular disease department of the Ministry of Health and Social Assistance in cooperation with the chair of clinical cardiology of the medical faculty at UVC, regarding prevalence, distribution and interrelation of the factors of coronary risk, such as arterial hypertension, changes in blood fluids and other factors, in the school-age population of Caracas. The New Delhi international meeting will provide an opportunity to trade information with groups who are working on the same questions in the United States, Europe and Japan.

Caracas EL UNIVERSAL in Spanish 5 Oct 77 Sec 1 p 14

[Text] Health and Social Assistance Minister Dr Antonio Parra Leon last night opened the Second National Allergy and Immunology Conference, which more than 200 specialists in the field attended. In his speech for the opening of the event, Minister Parra Leon noted the role played by the National Center for Clinical Immunology, which in just 2 years of existence has placed Venezuela in one of the highest ranks in Latin American immunology.

He noted that modern immunological technology has given us more rational therapies which enable us to prevent virus diseases such as polio and measles which used to be true scourges of our people. He said, "Besides, now we can perform prophylaxis against hemolytic disease among newborns. We have made great strides in our kidney transplant programs and are

beginning to make steps in building programs of immunization therapy for internal diseases and for treating malignant tumors." He added, "With all this in mind, my office made all necessary arrangements for the founding of the National Clinical Immunology Center in July 1975; this center operates under the Public Health through a contract with Central University of Venezuela which provides that the Clinical Immunology Unit of the Anatomy-Pathology Institute of the medical school at Central University is in charge of the study.

"My office has sought with the National Clinical Immunology Center to develop a new policy for scientific support of our hospitals on the national level with the decentralization and creation of units in this specialty which would be able to provide help, teaching and research on the regional level."

Caracas EL UNIVERSAL in Spanish 15 Oct 77 Sec 1 p 14

[Text] A total of 29 professionals, 9 from Venezuela and 20 from other Latin American nations, will take part in the eighth regional course on tuberculosis control planned by the Ministry of Health and Public Assistance and the Pan-American Health Office. The conference closed with Dr J. M. Padilla Lepage, public health director, Pan-American Health Office representatives and other dignitaries in attendance.

The study plan included a theoretical part and a practical section and was based on the importance of tuberculosis in Latin American nations, especially for people who are marginal, indigenous or living on reduced incomes. Vaccination with BCG was performed; this gives protection against 80 percent of cases of the illness when applied to children recently born or less than a year old or 15 years old. Diagnosis of the patient and identifying the germ, which is possible in 85 percent of cases through examining sputum, were covered, along with treatment with drugs highly effective against bacteria which are now in use, since these drugs contain the disease within 2 months and cure within 6 to 12 months, according to therapeutic systems used.

All the professionals who participated in the conference were chosen from workers in programs fighting against tuberculosis and will return to these activities to pass on what they learned. Basic subjects taught were statistics, general epidemiology and epidemiology of tuberculosis, theory and practice of immunological reactions and protection with BCG, bacteriology of tuberculosis as well as theoretical and practical training on programs, including a site visit to check how much the student has learned by an analysis of a program in the field.

Caracas EL UNIVERSAL in Spanish 24 Oct 77 Sec 2 p 33

[Text] Merida, 23 Oct (INNAC)--With the collaboration of the Pan-American Health Office, the Trujillo center of the University of the Andes, the malariology and environmental health division of the Ministry of Health and Social Assistance and the cooperative health services of Trujillo state, a survey will be performed in Trujillo on the prevalence of Chagas disease and miocarditis. Dr Dario Novoa Montero, University of the Andes cardiologist and epidemiologist for chronic diseases, made the announcement and added that this project will last 2 years as well as the fact that his coworkers will be Dr Jose Vicent Scorza, University of the Andes biologist, and medical laboratory technician Miguel Ponce of the United States. He indicated that supervision of the survey will be in charge of Johns Hopkins University of Baltimore, through its school of public health; computation aspects will be directed by Dr Cesar Briceno, of the applied statistics and computation institute of the economics faculty of the University of the Andes.

VENEREAL DISEASE

Caracas EL UNIVERSAL in Spanish 9 Oct 77 Sec 2 p 15

[Text] "Venezuela leads in the fight against venereal disease in the countries of Latin America." That is what Dr Julio C. Vechionacce Garcia, chief of the Venereal Disease Division of the SAS [Ministry of Health and Social Assistance], said.

"Our country, next to the United States, is the only one that has a Contact Research Service, that is, a duly qualified staff to identify, through those who utilize those centers, other carriers of venereal disease." Dr Vechionacce went on to say that this staff, trained on a psychophysiological level, through periodic programs, is qualified to attend to the needs of the various centers. "With the data obtained by this service, it is easy to locate other afflicted persons, when the latter do not go to a doctor--through ignorance, for psychological reasons, or because they treat themselves," added the doctor.

"We continue to request everyone's cooperation, both with regard to acknowledging known or suspected cases, and to fulfilling the obligation of going to any of the 150 venereal assistance centers that are in operation in the country."

Dr Vechionacce concluded by saying that "In our fight against venereal disease, it is very important to convince the general public that, at the slightest symptom, they should be treated in the centers that have been set up for that purpose."

VIETNAM

PUBLIC HEALTH SERVICE PRESCRIBES MEASURES AGAINST HEMORRHAGIC FEVER

Hanoi HANOI MOI in Vietnamese 7 Sep 77 pp 1, 4

[Article by Mai Tam]

[Text] Recently, the Public Health Service organized a preliminary summary of the hemorrhagic fever control phase conducted over the past 40 days.

Hemorrhagic fever continues to show a spreading trend. Starting out with the four urban wards, now all four rural districts have people affected by the disease. There are two forms of the disease that should be noted. The hemorrhagic form is found in all age groups and there are a number of serious cases.

The non-hemorrhagic form (classic form) occupies the larger part and is commonly ignored because it only produces fever, body aches and pains and headaches and is easily mistaken for the common cold and influenza, particularly among children.

In order to stamp out this disease quickly, the public health sector has decided to take six interrelated measures to be initiated conjointly and coordinated closely with one another:

1. To effectively supervise the epidemic's situation such as number of cases, disease forms, age groups, locations affected, density of *Aedes aegypti* mosquitoes, mosquito larvae's situation, results of prevention and control measures... Public health installations must effectively exercise command within their specialty to serve as staffs to the various leadership echelons.
2. To propagandize and motivate broadly and timely, adequately answer people's questions such as making utmost use of each type of insecticide and spraying equipment, epidemic control measures..., at the same time coordinating them with controls to urge their application and strictly enforcing the procedures for dealing with and penalizing as police offenses all violations of the sanitation rules for epidemic prevention and control recently promulgated by the city. This task is to be considered an element of the movement for a new civilized, familial and cultural way of living.
3. In the epidemic prevention and control measures, both state and people's actions are required and must be coordinated to avoid depending solely on state organization, funds and medicines or, conversely, leaving everything up to the people. In this task, the role of mass associations,

particularly the Red Cross and student and youth forces, in setting examples and motivating the masses to participate is very important.

4. To regularly undertake sanitation work to clean and beautify the city and eliminate mosquito breeding or mosquito-infested sites, the foremost basic measure being to guard against darkness, dampness and water accumulation.

5. To motivate the people, particularly the children's force, to release fish in clean water storage urns, jars and tanks to exterminate mosquito larvae.

6. To spray insecticides to exterminate adult mosquitoes in both urban and rural areas of the city, first resolving the problem of key points such as hospitals, schools, railroad stations, bus depots, locations where many people contracted the disease, locations heavily infested by mosquitoes and those which are densely populated. In this measure, modern spraying equipment must be coordinated with rudimentary equipment.

As regards the detection of diseased people for treatment, additional training must be organized and promptly unified at every echelon from top to bottom.

DUTCH-BUILT HOSPITAL

Hanoi VNA in English 1536 GMT 1 Nov 77 OW

[Excerpt] Hanoi, November 1--A 200-bed hospital in the town of Dong Ha, Binh Tri Thien Province, built with the help of the Kingdom of the Netherlands, was inaugurated yesterday. The hospital is equipped for internal medicine, general surgery, obstetrics, pediatry, radiology, contagious diseases and laboratory research. The personnel quarter covers 2,000 square metres. Le Tu Son thanked the Netherlands-Vietnam Medical Committee and the Dutch people for their valuable assistance.

MALARIA-INFESTED AREAS

Hanoi VNA in English 1518 GMT 16 Nov 77 OW

[Text] Hanoi, Nov 16--Researchers have marked out three main malaria-infested areas in the southern provinces. These are eastern Nam Bo (north of Ho Chi Minh City), the coastal area of the Mekong River delta and the central part of the Plain of Reeds. Basic investigations conducted by the Malaria, Parasitology and Entomology Department of the Public Health Ministry in Ho Chi Minh City have yielded satisfactory results in the research into the physiology and ecology of the anopheles *sundaicus*, the main malaria-carrier in the southern coastal delta, as

well as measures to exterminate it. The anopheles sunaicus grows and multiplies quickly in the ponds and canals of brackish water with a concentration of less than 3 grams of sodium chloride per liter. Therefore, the building of dams against salty water in the southern coastal areas, besides its major economic significance, also helps in the extermination of malaria in these areas.

ZAMBIA

BILHARZIA CASES AT SCHOOL

Lusaka TIMES OF ZAMBIA in English 13 Nov 77 p 3

[Text] Eighteen school children at Kakalo Primary School in Feira have been admitted to the local health centre because of an attack of bilharzia.

Senior medical assistant at the centre, Mr P. M. Chikweya, confirmed the attack and said the department was working hard to control the disease.

He added that the disease had been caused by pools of stagnant water overflowing from the Luangwa river.

Mr Chikweya said the children contracted the disease when they went fishing in the river or playing in the water.--ZANA

III. ANIMAL DISEASES

AUSTRALIA

QUARANTINE OF NEWCASTLE DISEASE

Brisbane THE COURIER MAIL in English 24 Sep 77 p 5

[Text] The Primary Industries Department yesterday quarantined a wide area around Cairns and the Atherton Tableland to prevent the spread of Newcastle Disease in poultry and birds.

The disease--of which there are a number of strains--was isolated recently in the Cairns area.

It was found in parrots allegedly imported from Indonesia and seized by customs officers.

The strain found is deadly and contagious.

Unless it is eradicated, it could cause huge losses to the State's poultry industry and native bird population.

A special Order-in-Council authorised yesterday by the acting Primary Industries Minister (Mr. Tomkins), prohibits the movement of all birds, poultry and poultry products within and out of the declared infected area without special licences.

Humans

There was no risk of infected poultry or eggs transmitting the disease to humans, Mr. Tomkins said.

The affected area embraces the City of Cairns, Douglas, Mulgrave, Atherton and Eacham Shires and that portion of Mareeba Shire east of the 145th meridian of east longitude.

A poultry industry official said last night that far north Queensland was a self-contained poultry area, and the declaration would have little effect on outside poultry supplies.

Licences

A department official said special licences would be issued to allow movement of eggs and poultry products from "clean" farms to market.

Mr. Tomkins said the ban would be maintained until all suspected birds had been destroyed.

"In the meantime, aviaries and poultry establishments are being kept under close surveillance to ensure there is no spread of the disease," he said.

Mr. Tomkins said an outbreak of Newcastle Disease in California in 1972 had cost \$56 million to eradicate.

All poultry, turkeys, sparrows, owls and parrots were highly susceptible to the disease. Pigeons and native birds also could be affected, but to a lesser degree.

In infected poultry flocks, the mortality rate could be as high as 99 per cent within days.

They said the symptoms were not always clear to unskilled observers.

The main symptoms included birds going off their food, a sleepy appearance, comb and wattles (under jaw) becoming darkened, darkened and swelling eyelids with watery discharge, discharge from the nose, reddish or reddish grey mucus in the throat, marked swelling of the head and neck and diarrhoea. In some cases, the disease affected the nervous system, causing birds to become excited.

STOCK DISEASES ANTICIPATED

Perth THE WEST AUSTRALIAN in English 5 Oct 77 p 35

[Article by Michael Zekulich]

[Text] Several thousand sheep and some cattle will die in the coming months because of annual rye-grass toxicity, a spreading disease that causes mounting concern in WA agricultural areas.

Early indications are that it will be a bad year for the disease.

The losses will occur despite intensive research activity in recent years by the CSIRO, the South Australian and WA Agriculture Departments and Murdoch University.

Total research expenditure this year could be nearly \$500,000.

The disease is an unusual combination of nematode (a worm) and bacterial infection. It can produce a potent toxin on mature rye-grass.

There are now 95 properties in WA known to have been infected and they sustained their biggest losses last year when 3,753 sheep died.

The disease was first noticed in Australia on two properties in the Black Spring area of South Australia about 20 years ago.

The first confirmed outbreak in WA was at Gnowangerup in 1968, though a previously suspected outbreak had been reported from a farm at Katanning in 1959.

The affected properties are spread over a total area of about 100,000 hectares and in the past six years, 10,789 sheep have been poisoned.

As annual rye-grass is the major sown pasture grass in WA, the disease could spread to a potential seven million hectares.

This possibility, according to the Agriculture Department, demands that farmers and other people whose jobs take them on and off properties should understand the disease and adopt measures to prevent its spread.

There is particular concern for farmers in areas such as Wongan Hills where the latest outbreaks have occurred.

Many are still thought to be unaware of its existence.

Research

Research so far has not found an economic answer to control of the disease once it develops.

A general antidote is still considered to be far off.

It is easy to understand why farmers become agitated when their stock contract the disease. The animals are not a pretty sight. They become stiff-legged, get the staggers and ultimately collapse and die.

The Agriculture Department believes that reducing rye-grass through herbicides will go a long way to controlling the disease and some farmers are now starting to adopt this plan.

In its September publication, the department has highlighted points that farmers should consider.

It is believed that the major spread is probably related to the long-distance movements of people, livestock, vehicles, produce and farm equipment.

STARFISH ATTACK MARINE LIFE IN PORT PHILLIP BAY

Perth THE WEST AUSTRALIAN in English 17 Oct 77 p 34

[Text] Melbourne--A starfish plague is devastating marine life in Port Phillip Bay.

Professional fishermen believe that most reefs in the area have been attacked by the 11-arm starfish.

They say that mussels and small abalone are being cleaned out and shell fishermen are losing thousands of dollars a week.

Fisheries and wildlife experts have been called in to study the problem but they say there is little they can do.

BOTSWANA

OUTBREAK OF FOOT-AND-MOUTH DISEASE

Salisbury THE RHODESIA HERALD in English 4 Nov 77 p 1

[Text] Gaborone--All cattle movement has been stopped throughout Botswana until an outbreak of foot and mouth disease in the Nokaneng area of Northern Ngamiland has been cleared up.

A spokesman for the Botswana veterinary services department said on Wednesday the outbreak was under control and is localised.

There was plenty of vaccine available and Britain had promised more within a few days, the spokesman said.

BRAZIL

INCIDENCE OF FOOT-AND-MOUTH DISEASE

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 12 Oct 77 p 30

[Text] Natal--Technicians of the National Animal Health Program of the Ministry of Agriculture have uncovered a focus of foot-and-mouth disease afflicting about 600 bovines of the Sao Jose Hacienda in Mossoro, the

principal municipio of the west zone of Rio Grande do Norte. The focus was uncovered in July, but it was only yesterday that the state directorate of the Ministry of Agriculture disclosed the information.

The hacienda, which belongs to the governor of the state, Tarcisio Maia, was closed down by the technicians of the National Animal Health Program, who are now awaiting the results of the laboratory analyses being made in Recife and Belo Horizonte because of the lack of adequate equipment in Natal. The cattlemen of that region fear the spread of the foot-and-mouth disease because the Agriculture Secretariat still has not begun preventive vaccination.

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 18 Oct 77 p 32

[Text] The rate of incidence of bovine aphthous fever in Brazil declined from 3.8 to 2.7 per 1,000 head of cattle between the first half of 1976 and the same period this year, according to a statement made yesterday by the coordinator of the National Campaign to Combat Foot-and-Mouth Disease, Joaquim de Almeida Oliveira, in his address at the official opening of the national symposium on foot-and-mouth disease held by the FAESP [expansion unknown] in Sao Paulo.

Almeida Oliveira explained: "We actually discovered an increase in the incidence of the disease last year, mainly caused by the larger number of cases of foot-and-mouth disease in the state of Rio Grande do Sul and, to a lesser extent, in the states of Parana, Minas Gerais and Sao Paulo"; disclosing the fact that, in 1975, the rate of incidence of the disease among bovine herds in the country was 3.5 per 1,000 head of cattle. The specialist claimed that such factors as insufficient inspection in the sector administering vaccine, delay in reporting focuses and, probably, the large number of unreported cases, as well as the low level of immunity among the herds, contributed to the incidence of the disease during 1976.

The disease was first rationally attacked in the country starting in 1971, when the federal government instituted the national program to combat foot-and-mouth disease, the implementation of which was to be carried out in four phases, until 1987. The first phase, extending over a 4-year period from 1971 to 1974, which has been completed, consisted of an intensive effort to immunize the bovine herds in the states of Rio Grande do Sul, Santa Catarina, Parana, Sao Paulo, Minas Gerais, Bahia and Espirito Santo.

CYPRUS

'BLUE TONGUE' DISEASE KILLS SHEEP

Nicosia TA NEA in Greek 22 Oct 77 p 8

[Text] Larnaca, 21 Oct--At Kokkinokhoria, sheep are being decimated by disease. The main foci of infection are Vrysoulles and Frenaros, where 100 animals have succumbed to the "Blue Tongue" disease, which had attacked Cyprus again 8 years ago. The area's veterinarians went into immediate action and have instructed the sheep farmers on the procedures to be followed to fight this disease, which, they stress, should not be the cause of anxiety. In this connection, they have noted that if the present cold weather continues for another couple of weeks, the disease will subside, since the virus is carried by a kind of gnat that only flies at night. Symptoms involve swelling of the upper and lower lips and of the head. Veterinarians are directing the sheep farmers to keep the lights on at night in the pens and to spray the area to rid it of the insects. Konstandis Kyriakos, a refugee now in Vrysoulles, was especially hard hit, having lost 10 sheep to the disease.

HONG KONG

OUTBREAK OF FOOT-AND-MOUTH DISEASE

Hong Kong SOUTH CHINA MORNING POST in English 11 Nov 77 p 1

[Text] New Territories pig breeders have stepped up herd inoculations following an outbreak of foot-and-mouth disease.

Outbreaks have been reported in Fung Kat Village, near Kam Tin, and Lam Tei, Yuen Long.

However, actual deaths are not known as many breeders have not reported their losses to the Agriculture and Fisheries Department.

Since September, the department has registered 10 outbreaks in which 122 pigs were involved, of which 12 died.

A spokesman for the department said free vaccinations were provided to breeders and about 9,000 doses are supplied annually.

He said the disease is a seasonal one which increases in colder weather.

An Urban Services Department spokesman said a close watch is being kept on illegal slaughtering.

MALAYSIA

EQUINE INFLUENZA SUSPECTED IN COUGHING EPIDEMIC

Kuala Lumpur NEW STRAITS TIMES in English 20 Sep 77 pp 1, 9

[Text] The outbreak of coughing, believed to be caused by equine influenza, which decimated racing at Kuala Lumpur last Sunday, has also struck at stables in Ipoh, Penang and Singapore.

Besides the Selangor Turf Club, where three-quarters of the 300 or so horses quartered at the stables are affected, the Perak Turf Club yesterday had 57 on the coughing list, Singapore reported 60 cases and Penang 12.

Many of the horses at the Ampang Road stables are from these three racing centres.

According to Mr. D. R. H. Brown, secretary of the Singapore Turf Club, about 60 horses in Singapore have been affected by the flu.

Mr. Brown said, however, that it was still too early to predict to what extent the Singapore Gold Cup race would be affected by the epidemic.

He said: "The flu is not a serious disease although it would affect racing. However, we will be holding a meeting in Kuala Lumpur next week to discuss the problem and decide whether or not to carry on with the Singapore race meeting."

Asked what was being done to prevent the further spread of the flu, Mr. Brown said that all four turf clubs had agreed that there be no movement of horses between them for now.

The 60-odd horses affected in Singapore, he said, were all under veterinary care.

It is understood that horses affected by the flu usually take at least two weeks to recover and another two weeks for them to get back into racing condition.

This would make it impossible for them to race at the Singapore Gold Cup meeting.

In Kuala Lumpur, the Selangor Turf Club is seeking the advice of foreign veterinary experts. Swabs have been taken from some of the affected horses and these will be flown to Newmarket for analysis.

Veterinary Department officials and the senior bacteriologist of the University Hospital, Dr. Lam Sai Kit, have also taken specimens.

In Ipoh, the 57 horses affected (of some 200 in the stables) have been isolated. All have been treated for possible secondary complications.

Samples have been taken for laboratory analysis. Investigation work will be carried out by the Veterinary Research Institute in Ipoh.

All horses on the coughing list are being completely rested.

MAURITANIA

ANIMAL DISEASES, PREVENTIVE MEASURES NOTED

Nouakchott CHAAB in French 22-23 Oct 77 pp 1, 8

[Article by Kane Sely]

[Excerpts] Importance of Animal Husbandry

Because of the large majority of our population engaged in this sector (nearly 60 percent), animal husbandry in our country derives its importance from our social situation.

As a matter of fact, throughout the country, our livestock herds continue to be in poor health, despite the efforts exerted in this sector.

Threatening Diseases

Good health is necessary for improved development. A sick animal cannot reproduce normally.

In our country, we saw large numbers of animals die in the months of June and July (soudure [?hot weather] months) as in this period, livestock (particularly cattle) are ready to give birth; however, because of hunger accompanied by certain diseases, the animal dies from weakness, as does the unborn offspring within it.

That is why, as Dr Diagana emphasized, recent activities in this sector have been determined by the present health situation. Priority was given to any action for the improvement and development of animals.

According to Dr Diagana, the animal husbandry service is concerned over health; for him, the health situation must be protected and diseases and sicknesses which affect our animals must be prevented.

The causes of death are often attributed to parasitosis, particularly among young animals.

The principal known diseases are bovine plague, anthrax, botulism, etc.

In 1977, the Office of Animal Husbandry took important steps to arrest these diseases. A partial balance sheet records 432,802 inoculations against bovine plague, 220,761 inoculations against pneumonia, 126,805 against botulism, 770,692 against symptomatic anthrax, 550,559 inoculations against bacterid anthrax and 39,069 treatments for internal parasites.

These figures do not reflect the real picture of the inoculations to be administered for the year for, as Dr Diagana stresses, inoculation campaigns begin around October after the rainy season because that is when the animals are well-nourished and can endure the inoculations.

To this list should be added the 5,560 inoculations against trypanosomiasis and 14,659 against external parasites.

However, despite these measures, diseases, particularly bovine plague, continue to break out, especially in the first region.

In the opinion of Mr Diagana, "the scheduled activities are insufficient to permit complete eradication of the principal diseases, such as bovine plague in the southeast."

According to Dr Louleid, director of the National Center for Animal Husbandry and Veterinary Research, there are potential threats of epidemics in the first, second and third regions.

He noted that polyparasitism is to be found in all of the exploitable regions, and also reported are outbreaks of localized botulism, symptomatic anthrax, bacterid anthrax and pasteurellosis. However, "we feel the last part of this list does not constitute a very serious threat; in all cases, the regional or departmental animal husbandry service is able to arrest these diseases," Dr Louleid added.

It should be noted that our country experiences large scale nomadism. Our livestock raisers do not have fixed abodes. This means that they cross the borders in search of pasturage in neighboring countries. These travels, then, may spread diseases and complicate their treatment.

According to Dr Louleid, steps have been taken in this sector. Classically, sanitary and medical prophylaxis measures are taken on site. They are complemented by actions consisting in the destruction of animals in places where outbreaks of disease have been announced.

The present situation in these regions is explained by the fact that from 1967 to 1970 an antiplague campaign was conducted to halt this disease, said Dr Diagana. However, the logistic resources diminished, thus rendering sanitary coverage inadequate.

Immunity acquired in the course of this campaign applies to very specific animals. These animals have now attained a certain age and outbreaks of plague are making their appearance among the youngest animals born after this campaign.

It can be said, therefore, that this livestock-raising region, which is the most important because of the number of its herds, must have great protection.

Although steps were taken--this resulted in the diminution and even the disappearance of several diseases--much remains to be done, however. This is also the opinion of Dr Diagana who stated that structural inadequacies are noted in the livestock-raising sector. In comparison with neighboring countries--Mali or Senegal for example--our country is lagging, because of a lack of laboratories. An insufficient number of livestock-raising cadres has also been noted. What is more, most of these cadres are medical aides and assistants of advanced age, who consequently are less motivated.

In addition to the inadequacy of the mid-level cadres, there are also deficiencies in the superior structuring. For all of the herds of the country, there are only three veterinary doctors, a very low figure.

This situation should be given more attention by our national office, with a view to training a greater number of superior cadres in this sector.

Although such is the general situation in our livestock-raising sector, it must be said that this year, too, there is a danger of serious problems.

As we have already emphasized, our livestock-raising is linked with climatic conditions.

According to Dr Louleid, who was a member of the rural development mission which traversed certain regions (the 6th, 5th, 4th, 3d, 10th and 2d), pasture lands this year are still insufficient and above all their distribution is not very homogeneous. Complications of two kinds, therefore, are at hand: the first is that certain pasture lands cannot be exploited for lack of a water infrastructure for the fields and also for lack of networks of firebreaks which causes these pastures to be exposed to possible brush fires. According to regional estimates, remarked Dr Louleid, these pasture lands cannot support exploitation until the month of February or March.

This means that the "soudure" period for 1978 will be early and will last longer.

There are myriad problems; and again this year our livestock sector is in danger of experiencing the 1972 situation, unless certain measures are not taken in time.

RHODESIA

INCREASE IN RABIES

Salisbury THE RHODESIA HERALD in English 10 Nov 77 p 3

[Text] Umtali--The incidence of rabies in Umtali has increased in the past two months and the Veterinary Department says there were six confirmed cases, all dogs, out of 11 suspected cases in October.

Three of these were from the city's central area and one each from Circular Drive, Crawford Road, and Burns Avenue.

A spokesman for the department said that there was no danger of a serious outbreak among dogs in the city provided immunisations were kept up to date. But he warned of the danger of stray rabid dogs entering the suburbs.

UGANDA

'TURNING DISEASE' SAID PREVALENT IN NORTH TESO

Kampala VOICE OF UGANDA in English 4 Nov 77 p 4

[Article by S. K. Aruo]

[Text] When I was in North Teso District a few months ago, I heard several farmers complaining of a nervous disease which is killing their cattle in large numbers. Some farmers have lost as many as ten animals or more. As usual, the people would like to know what can be done to treat infected animals, and what can be done to prevent cattle from getting the disease.

North Teso is probably one of several districts that have experienced this disease. The disease has probably never been heard of in other districts. This disease is called turning disease.

Turning disease has been known to occur in Uganda since 1934. According to Mettam and Carmichael who first reported the existence of the disease in this country, it occurs in cattle with a history of East Coast fever, a tick-borne disease. According to these and other authorities turning

disease is a cerebral (brain) form of East Coast fever because in some cases the brain is found to carry *Theileria Parva*, the causal organism of East Coast fever.

Most cases of turning disease in Teso occur in cattle that have already suffered from East Coast fever in their calfhood. This observation is in agreement with the suggestion that the disease occurs in animals that suffer a second attack of East Coast fever when exposed to heavy tick infestation.

It is, therefore, not surprising that the disease occurs in North Teso because this is one of the districts where East Coast fever is very prevalent and tick control is almost impossible because of several factors some of which are beyond our control.

Animals suffering from turning disease may first be seen walking as if they were blind, or walking in circles. They usually do not show any fever. They, however, lose weight rapidly because they generally do not settle down to eat. They have a compulsion to move about. Infected animals usually die. Many farmers slaughter their animals as soon as they are detected.

As far as I know, there is no medicine that can cure the disease. I have personally tried the "almighty" terramycin without any success.

The disease can be controlled by the control of the tick. Therefore, in areas where tick control is adequate the disease is rare and probably has never been observed.

In North Teso and probably other parts of the country, tick control is impossible because of many factors. The most important factor is lack of adequate supplies of water. Even in areas where communal dips were constructed the exercise failed because of lack of water. The use of dips needs large quantities of water initially for the dilution of the acaricide and subsequently for replenishment after use of the dip.

Because of the danger of contaminating water sources, the dips are constructed away from such sources. Without pumps and pipes it is impossible to deliver water to the dips. Unless some other methods of getting water to the dips are found tick control in North Teso and similar areas will remain a serious problem.

People who have small herds try to remove ticks from animals by hand. This is a very tedious exercise. In large herds it is virtually impossible. Even then because of the system of communal grazing re-infestation occurs immediately after this treatment.

Regretably, turning disease is going to remain a serious problem in these areas as long as there is no easy solution to the tick control issue.

VENEZUELA

SUMMARY OF CURRENT INCIDENCE OF ANIMAL DISEASES

Caracas EL UNIVERSAL in Spanish 10 Oct 77 Sec 2 p 26

[Text] Maturin, 9 Oct (Special)--The Ministry of Agriculture and Stock-raising will mount an intensive campaign against brucellosis and aphthosis in the northeast, according to an announcement from officials of this ministry in Monagas, who explained that the ministry will perform this health operation with the purpose of improving its programs for farm-workers. Dr German Gomez Gutierrez, ministry director for stockraising, said that now an evaluation is under way in the area on the second period of health campaigns held in the northeast zone. Also he noted that in Guayana a survey will determine the incidence of the diseases in that area. Lastly he expressed hope that the results of the campaign which is soon to begin will reach the goals set for it.

Caracas EL UNIVERSAL in Spanish 24 Sep 77 Sec 2 p 21

[Text] Ciudad Bolivar, 23 Sep (Special)--In La Vergarena there are 30,000 cattle with aphthosis, according to Dr Manuel Joaquin Flores, president of the Bolivar section of the College of Veterinarians, who said also that the situation for cattle raising in the southern part of Heres district, where the disease is active, is serious. He blamed this serious situation on the Agriculture Ministry and on stockraisers, adding that measures have not been taken to eradicate the "o" virus of aphthosis from the infected area.

The expert on the subject repeated that ranchers are greatly responsible for the problem because they do not report outbreaks promptly to the ministry, and this allows the virus to spread to other stock in the area. Also instead of vaccinating animals four times yearly as the Ministry of Agriculture and Stockraising recommends, they do it generally only once. Besides he singled out the ministry for responsibility in various ways, principally because many times there is no drug available to fight the virus.

Asked what damage the aphthosis virus does to the animal, he said it affects the heart, pancreas and liver as well as causing infertility and loss of weight, interfering, obviously, with ranchers' economic progress. The Veterinarians College president responded to another question by saying that just on the La Vergarena ranch there are 30,000 cases of aphthosis. Lastly he suggested that ranchers and the Agriculture Ministry should fight in a timely way the disease infecting stock in the southern part of Heres district.

Caracas EL NACIONAL in Spanish 31 Aug 77 Sec D p 1

[Excerpt] Other ranches affected are the one owned by Jesus Moreno and the Cachimbo Ranch which belonged to the late novelist Jose Berti. Variants of the "O" and "A" viruses have been found in samples taken in the affected area; origin of the apthosis outbreak has not yet been determined.

In order to avoid worsening the problem, a sanitary cordon has been drawn connecting the Caroni River, El Paragua, El Aro and the Ciudad Piar region. Also the animal health department of the Agriculture Ministry ordered a massive inoculation in Barcelona of more than 10,000 heifers against apthosis; the animals were arriving from the isthmus of Panama to the Barcelona airport for Ciudad Bolivar stockraisers.

Caracas EL UNIVERSAL in Spanish 26 Sep 77 Sec 1 p 16

[Text] A notable decrease in canine rabies cases has been observed during the past 3 years, according to figures from the Antirabies Service of the metropolitan area of the Ministry of Health and Social Assistance; rabies is considered to be reduced to minimum incidence at the present time. Dr Miguel Guaitero, head of the Antirabies Service, explained that in 1975 there were 76 cases of rabies in the metropolitan area, in 1976, 16 cases, and thus far in 1977 only 2 cases. The reduction, according to Dr Guaitero, is due to optimum results of prevention programs against rabies carried on by the health office. He announced that it should be remembered that the population group most in danger of dog bites are persons under 15 years of age. This means that the group is under most risk of contracting rabies and ought to be the object of special care and attention so that the problem can be avoided.

Caracas EL NACIONAL in Spanish 8 Oct 77 Sec C p 4

[Text] The outbreak of equine rabies at San Isidro in the Paracotos area of Guaicaipuro district in Miranda state is under complete control of the Ministry of Agriculture and Stockraising, according to Dr German Gomez Gutierrez, general director of stockraising development for the ministry. He noted that the outbreak, which took the lives of five purebred animals, was confirmed by diagnosis at the Maracay laboratory of the Center for Veterinary Research. Dr Gomez said, "Once the problem was recognized, work began in collaboration with the National Racing Institute on the following operations: inoculation of all equine stock in the area by staff of the institute as well as quarantine measures including restriction to the affected site as a means to combat the infection." He added that the Agriculture Ministry itself vaccinated all susceptible stock of the towns of Paracotos and Tacata. Also under way is an intensive campaign against bats, which possibly transmit the disease, and strict

epidemiological vigilance to contain in time any other type of rabies. Lastly he announced that jointly with the Rinconada racetrack a program will be set up to control equine diseases which affect purebred horses such as equine encephalitis, prioplasmosis, and so forth.

Caracas EL UNIVERSAL in Spanish 14 Oct 77 Sec 2 p 22

[Text] Colonia de Yumare, Yumare State, 13 Oct (INNAC)--An outbreak of vesicular stomatitis has been detected on several ranches in this area, and more than 200 cattle are affected. Ranchers are quite concerned about the situation and are awaiting the intervention of officials of the Ministry of Agriculture and Stockraising. Braulio Sanchez, Pedro Noguera, Ramon Antonio Perez and other stockraisers of the populated centers of the Zero and 26 of Colonia de Yumare informed INNAC that the heavy rains formed large lakes, which along with the intense heat and infection gave rise to an outbreak on several ranches of the disease known as vesicular stomatitis, a disease which often is confused with aphthosis. According to the ranchers, epizooty affects animals in such a way that they present symptoms of disorders of the hoof, as well as blisters in the mouth and on the tongue which make it impossible for them to eat or drink, so they grow thin and die. Noguera said that estomatitis is being countered by the same ranchers with copper sulfate applications and methylene blue, salt and lemon, but just the same they are awaiting Agriculture Ministry officials who can study the situation and bring to bear the most helpful measures.

Caracas EL UNIVERSAL in Spanish 10 Oct 77 Sec 2 p 8

[Text] Acarigua, 9 Oct (INNAC)--Presently in Portuguesa there is a high incidence of bovine parasitosis from tapeworms, and there is no specific medicine available against the disease. Agustin Benedito, owner of the San Agustin ranch in the jurisdictional area of the Agua Blanca settlement in Araure District, told us that the situation is alarming and unexplainable. "Because we do not even know which official agency ought to take care of this kind of problem, therefore we are forced to try to get someone to take interest in it. Nowhere can we find any medicine to combat the tapeworms and the losses in milk production have been severe. Tapeworms in a human being cause serious problems of anemia and overeating and something similar happens with cattle, which means it is unjustifiable that adequate medicine is not on the market in a usable form," Benedito explained.

Whose job is it to solve this?

"The various laboratories for veterinary medicine operating in Venezuela and the farming-veterinary firms."

Does the Ministry of Agriculture and Stockraising do anything for this type of problem?

"Doubtless the cattle sector of the ministry must have something to do with it, but I do not believe their organization is competent to make people supply the market with what we need, in spite of the fact that we have adequate proof through laboratory analysis that we have a high incidence of tapeworms indeed."

What is the medicine you called specific?

"There are more than one, such as lead arsenate, Disestam, Atebrine, and fresh extract of male bracken, but none of them is available on the market."

Lastly Mr Agustin Benedito said that the situation is growing worse daily, "because the official agencies make loans for cattle raising but do not give timely technical assistance, and that is serious."

ZAMBIA

OUTBREAKS OF NEWCASTLE DISEASE

Lusaka TIMES OF ZAMBIA in English 26 Oct 77 p 7

[Text] An outbreak of Newcastle disease has hit Kitwe and experts are taking far reaching measures to save the poultry industry from collapse.

With immediate effect, no domestic fowls, turkeys, geese, ducks, guinea fowls and cage birds will be moved into or out of the ten-kilometre radius from the town centre without an official permit.

The warning of the outbreak is contained in a circular issued by district livestock officer Mr T. E. Simutowe, who said the disease affected all kinds of poultry and was fatal.

"This is a disease which affects all kinds of poultry and the mortality rate is 100 per cent," he warned.

He requested the public to co-operate with his department as stipulated by the law on stock diseases.

Permits for the movement of poultry would be issued by Government veterinary or livestock officers who should be consulted.

Copies of the circular have also been sent to the provincial veterinary officer in Ndola, Kitwe police and district secretary, Mr John Mulambya.

Over 300 cattle have died in Livingstone's Chief Nyawa area and the local people have now called on the Party and Government to come to their aid.

Chief Nyawa said farmers were afraid of the rate at which farm animals were dying.

He complained that the veterinary department was neglecting his area by removing tsetse fly control camps at Siamundele and Kauwe Junction, leaving more than 20 villages helpless.

Chief Nyawa claimed that a team of veterinary officers which had gone to the area failed to establish the reason why the cattle were dying.

At the last district development committee meeting held at Zimba, the veterinary officials could neither deny nor confirm the report.

Lusaka ZAMBIA DAILY MAIL in English 8 Nov 77 p 5

[Text] An outbreak of Newcastle disease has been announced in Choma district and the Veterinary Department has instructed members of the public not to move poultry in or out of the infected area.

In a statement released in Choma yesterday a veterinary spokesman said that a circular area lying within a 10 kilometre radius centred on Lily Pond Farm of Mr J. A. Nell, has been declared an infected area.

He said no poultry may be moved into, out of or within the infected area, except with permission from his office.

The spokesman said that another area affected was one lying within a 10 kilometre radius centred on Choma Post Office and appealed to the public to abide by the ruling.

He warned that the disease was highly contagious and if precautionary measures were not taken, all poultry could be wiped out.

However, the spokesman said his office was doing everything possible to eradicate the disease before it spreads to other districts saying that the success of the exercise would be determined by the availability of the vaccine.

Lusaka TIMES OF ZAMBIA in English 5 Nov 77 p 2

[Text] Copperbelt has run out of vaccine for the effective control of the Newcastle disease which has already hit certain parts of the province.

The outbreak of the disease was realised recently in Kitwe and experts were reported to have taken far-reaching measures to save the poultry industry.

Provincial veterinary officer, Dr Augustine Bush, confirmed in an interview yesterday that there had been a shortage of Newcastle vaccine of various types which was useful for the prevention of the disease.

Dr Bush could not say how much vaccine was required to cater for all the farmers in the area, but added that it was imported with the approval of the director of veterinary department in Lusaka.

He said normally commercial farmers obtained vaccine from chemists and carried out the vaccination themselves to ensure that their poultry was healthy all the time.

But he said his men were always available to advise farmers on dosage "to prevent nasty consequences."

"With already sick chickens there is no treatment to be given to them because there is no chance for them to survive. They are already dead, but it is necessary to prevent the disease by vaccinating the birds in time," he said.

On the outbreak of the disease in Kitwe, Dr Bush said Government measures had been gazetted and were in force indefinitely.

He said that "there was a small number of chickens" which had been attacked in the early days of the outbreak of the disease, but that he had not received reports of similar nature lately.

He commended the public for the co-operation they had given to the veterinary officials by obeying the regulations which were imposed following the outbreak in Kitwe.

The warning of the disease was contained in a circular issued by Kitwe district veterinary officer Mr T. E. Simutowe last month who said that Newcastle affected all kinds of poultry and was fatal.

Mr Simutowe warned that with immediate effect no domestic fowls, turkeys, ducks, guinea fowls and cage birds would be moved into or out of the ten-kilometre radius from the city centre without official permit.

Mortality Rate

"This is a disease which affects all kinds of poultry and the mortality rate is 100 per cent," the veterinary officer said at the time.

Mr Simutowe requested the public to co-operate fully with his department as stipulated in the law on stock disease adding that permits for the movement of poultry would be issued by Government veterinary livestock officers who should be consulted.

Copies of the circular were sent to Dr Bush in Ndola, Kitwe police and district secretary, Mr John Mulambya.

IV. PLANT DISEASES AND INSECT PESTS

AUSTRALIA

LOCUST PLAGUE

Sydney THE SYDNEY MORNING HERALD in English 12 Oct 77 p 3

[Text] Bands of plague locusts are attacking wheat crops in central western areas of NSW.

Plague locust eggs have hatched over large areas of central and north-western districts of the State.

Major infestations of hopper bands now extend from a little north of Brewarrina to Carinda in the east, south to Coonamble and south-west to Nyngan. Other infestations exist on the north-west slopes of the Warrumbungles and around Moree.

Hatching of eggs has also started in the Tullamore, Condobolin, Hillston and Mossgiel areas.

According to the Australian Plague Locust Commission, swarms of locusts are likely to move south by about mid-November into the Wagga area and into other parts of the northern Riverina.

BRAZIL

DISEASED COFFEE PLANTS

Sao Paulo FOLHA DE SAO PAULO in Portuguese 15 Oct 77 p 19

[Excerpt] The lack of rainfall and the presence of the "mine bug" are damaging the coffee crop in the Marilia region. The youngest coffee plants are the ones hardest hit, and the growers are not satisfied with the health of their plants.

IRAN

CAMPAIGN LAUNCHED AGAINST RICE-EATING WORM

Teheran ETTALA'AT in Persian 20 Oct 77 p 25

[Text] A campaign against pests is being conducted with the general cooperation of the rice paddy workers and the guidance of officials and Extension and Development Corpsmen. The compulsory program to combat the rice stalk-eating worm pest was announced for all rice paddy workers in the provincial regions of Gilan, Gorgan, and Mazandaran.

In carrying out this program the rice paddy workers will make use of the guidance of officials of the Plant Protection Organization and the Extension and Development Corpsmen.

The directive for combating the rice stalk-eating worm pest, which has been drawn up to prepare the land for cultivation next year, must be implemented by all rice paddy workers by 1 Azar (22 November).

The directive emphasized that if the rice paddy workers shirk from implementing the program, during the following year the pest from one paddy will contaminate another paddy in which the campaign was conducted. Therefore the rice paddy workers must be prepared right now to prevent and destroy this pest with collective and general cooperation and the help and guidance of government officials.

The Directive

All rice paddy workers were warned, in the directive on combating the rice stalk-eating worm pest, that they are obliged to gather the remaining rice stalks and burn them, and after the burning has destroyed all the stalks remaining, lands must also be plowed immediately.

The implementation of this program must be accompanied by cleaning the farm surroundings and removing the weeds. During the period from Azar (November-December) until the end of the year all farms will gradually be put under water. (The purpose of the flooding is to fill up the water supply within the rice paddy farms.)

This directive pointed out that if any farms have an insufficient supply of water these operations can be carried out until 15 Farvardin (4 April) of next year. On the whole, implementation of the directive is obligatory and compulsory for all rice paddy workers.

Don't Shirk From It

The third section of the directive added that by the end of Ordibehesht (April-May) next year all rice paddy workers must clean their surrounding

farmlands of weeds and irrigate the environs of the granaries, the piles of rice and their borders.

The Plant Protection Organization has announced that, based on the experiences of the past few years, because a limited number of rice paddy workers (such as the rice paddy workers of Kuchesfahan during the past agricultural year) shirk from carrying out the agricultural campaign operations on various pretexts, it is necessary in attaining the aforementioned objective as a national crusade to create the necessary policies and enjoy the effective cooperation of the Rastakhiz Party and police and local authorities.

VENEZUELA

UNKNOWN DISEASE ATTACKS COCONUT PALMS ON MARGARITA

Caracas EL NACIONAL in Spanish 4 Aug 77 Sec D p 7

[Text] An unknown disease is attacking coconut palms on the beaches of Margarita Island, especially El Agua beach. A technical commission from the Ministry of Agriculture and Stockraising and CONARE [expansion unknown] are investigating to determine what type of disease this is which has appeared on the island attacking young plants; it is clear it is not "red rings," which on other occasions has affected trees in the entire eastern area. Members of the technical commission were announced as Victor Medina, Arquimedes Aranguren, Rafael Rodriguez, Jesus Morales and Zulay Moreno. The disease is attacking not just trees on the beaches but also ornamental trees at some private homes.

ZAMBIA

TSETSE FLY CATTLE DEATHS

Lusaka TIMES OF ZAMBIA in English 28 Oct 77 p 7

[Text] A tsetse-fly control team has been dispatched from Kalomo to Chief Nyawa's area where over 300 heads of cattle have been reported dead.

District secretary in Kalomo, Mr Remmy Shangobeka, said the team had gone to carry out surveys on the affected areas before spraying could start.

Mr Shangobeka said the tsetse control department was doing everything possible to arrest the situation.

Last week Chief Nyawa complained that cattle in his area were dying in great numbers and appealed to the Party and Government to come to their aid to avert the situation.

The chief blamed the veterinary department for neglecting his area by removing the tsetse-fly control camps at Siamundele and Kauwe junctions leaving more than 20 villages unprotected from the sleeping sickness carrier fly.--ZANA.

CSO: 5400

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