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Worldwide Report

EPIDEMIOLOGY

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14 June 1985

WORLDWIDE REPORT
 EPIDEMIOLOGY

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(Hanoi Domestic Service, 23 May 85) 92

PAPER REPORTS 'VIRAL AILMENTS RAGING' IN DHAKA

Dhaka THE BANGLADESH OBSERVER in English 12 Apr 85 p 1

[Text] Diarrhoeal diseases, viral fever and chicken-pox have broken out in different parts of the city. Diarrhoeal diseases have broken out in epidemic form in Manikganj and Nilphamari districts also. The specialised hospital at Mohakhali run by the International Centre for Diarrhoeal Diseases Research in Bangladesh (ICDDR) is experiencing heavy rush of patients for the last few days. Most of the patients are children. The exact number of patients admitted daily is not known, but the number of fatal cases are minimal according to a hospital source.

A private physician told Observer that viral diseases including viral fever are raging in the city. Most of the cases admitted at ICDDR Hospital were also due to viral attack, according to the physician. He, however, said that detection of viral attack can only be made by the ICDDR. Arrangement for detection of the viral attack is absent in other hospitals, so the doctors depend only on clinical detection.

Every day 200 to 250 patients are reporting to ICDDR hospital it is learnt.

When contacted a number of physicians told Observer that the incidence of chicken-pox is increasing daily in the city. The disease broke out in the city a few days back. They were of the view that viral infection has started with the change of season in the country.

Our Nilphamari Correspondent reports that diarrhoeal diseases broke out in two upazilas in Nilphamari district. During the last ten days 74 persons died of diarrhoeal diseases in these two upazilas namely Dimla and Jaldhaka. Of the total deaths 42 died at Nowtara, eight at Balapara and two at Dimla Union of Dimla Upazilas while 22 at Douabari under Jaldhaka Upazila. About 300 persons of these upazilas were attacked by the disease so far. The Administrators of Dimla and Jaldhaka health complexes admitted that 42 and 23 deaths were due to diarrhoeal diseases. The health complexes were suffering from shortage of required medicine and rehydration agents for treatment of the patients.

Diarrhoeal diseases have also claimed the lives of 55 children in five upazilas in Mankganj District during the last eight days. Of the total 55 deaths, 23 were reported from Charkatari Union under Daulatpur Upazila, nine under Harirampur Upazila, seven under Manikganj Sadar Upazila, 13 under Satura Upazila and three under Shibalaya Upazila. The District Administration has asked the District Health Authority to mobilise medical teams to the affected areas immediately.

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OFFICIAL DISCUSSES DIARRHEAL DISEASE EPIDEMIC

Dhaka THE NEW NATION in English 24 Apr 85 p 8

[Text]

Government is taking all steps to control the virulent type of diarrhoeal diseases that have broken out in the northern bordering districts of the country, the Health Secretary, Mr. A.B.M. Ghulam Mustafa, said in Dhaka yesterday.

Briefing newsmen on the reports appearing in a section of newspapers describing the diarrhoeal diseases as cholera, the Health Secretary categorically said that 'not a single death had occurred in those places due to cholera.' He, however, admitted that cholera was endemic in Bangladesh.

He said that pathological examinations conducted on the affected persons in those areas revealed that most of them were suffering from shigellosis (blood dysentery), E. Coli infection, amoebic dysentery or Rota virus.

Mr. Mustafa said that the Health Ministry had mobilised all its machinery to control the disease. Apart from local level medical teams special teams of ICDDR, B and mobile medical teams have moved to the spots to clinically diagnose the disease and for treatment of the affected persons. Emergency hospitals have also been put up in some of the affected places, he said.

Quoting from figures, the Health Secretary said that from April 1 to April 21, 5,310 people were attacked by the disease in Kushtia out of which 33 deaths were reported. During the same

period 460 people were affected in Rangpur and out of which 15 people died.

In Lalmonirhat four people died out of 141 affected persons and in Jessore 124 people were affected out of which only three deaths were reported from the district. In Bogra, out of 798 affected 21 deaths were reported. In Barisal 39 people were attacked and no death was reported.

He further said from March 10 to April 21, 1,873 people were affected by various types of diarrhoeal diseases in Nilphamari out of which 66 people died, programme was in readiness to face any eventuality in any place of the country. In this connection he mentioned five teams comprising doctors and paramedics were based at every upazila. Three similar teams were based in every district headquarters to supplement upazila teams.

Besides, eight medical teams in each medical colleges of the country were also ready to face any major epidemic in the country. Apart from those teams, specialised medical teams of ICDDR, B were also being sent to the spots at times of need.

Mr Mustafa said apart from package programme of health education, sanitation, nutrition status, food hygiene and epidemiological survey, community involvement was the most important factor for containing outbreak of this type of disease.

ANTIMALARIA DRIVE IN CHATTAGONG HILLS, OTHER PLACES

Dhaka THE BANGLADESH TIMES in English 26 Apr 85 pp 1, 8

[Article by Zainul Abedin]

[Text]

The government has taken up a Taka 15 crore programme to spray DDT and other insecticides in Chittagong Hill Tracts, Bunderban, Cox's Bazar, Comilla, Feni, Mymensingh, Barisal, Sylhet and other areas of Bangladesh bordering India and Burma under Malaria Control Programme in 1986.

Talking to the Times, a senior official of the Department of Health Service said that DDT would be sprayed twice to kill the mosquitos that carry malaria germ. The first round of spraying operation will be carried out from March to May and the second round from August to October next year, he said.

The official said the DDT will be procured locally as well as imported from abroad.

Elaborating on the spray operation in Chittagong Hill Tracts and other areas of Bangladesh, the senior official said that field workers of thana health complex and trained people will be engaged in spraying operations.

The official said that out of

Taka 15 crore, a substantial amount would also be spent on procuring equipment and its accessories.

The official stressed the need for coordination between Bangladesh, Burma and India to effectively combat malaria in their respective countries. He suggested border anti-malaria coordination conference in the first quarter of each year. The meeting would not only discuss various measures but would also coordinate and exchange on spraying activities incidence figures and entomological activities in the form of quarterly reports. Border meeting should be held annually between officers of bordering areas of the participating countries, he said.

The official said that the disease remained confined to Chittagong Hill Tracts, Bunderban, Sylhet and other areas bordering India and Burma. "It is under complete control," he said.

Explaining the reasons for outbreak of malaria, the officials said that it was a feeling that all mosquitos carried the germs of malaria which was

not true. Only some particular type of mosquitos transmit germs.

The official said that one of the reasons of outbreak of malaria in Chittagong Hill Tracts was the influx of refugees from Burma into Bangladesh in 1978. They carried the *P. falciparum*. He said that actually anophelis balabanensis carried the germs and causes cerebral malaria and the patient was sure to die, he said.

Detected some four years ago, this type of mosquito is now an international problem. Research is being conducted on it, he said.

The official said that "A. balabanensis lived in dense jungle and is immune to DDT. Besides, it never sits on the wall of the house rather if continues to fly."

He said drugs were being supplied to the inhabitants of the localities so that resistances in human body is enhanced to combat the disease.

He said that the stock of drugs was sufficient for three years.

EDITORIAL SCORES 'HIDING' OF CHOLERA CASES

Dhaka THE NEW NATION in English 25 Apr 85 p 5

[Editorial]

[Text]

The water-borne dehydrating killer, whatever name we give to it, has again assumed a serious form. The worst affected districts are Nilphamari, Pabna, Kushtia, Rangpur, Jessore, Barisal and Bogra. According to government sources, the number of death cases so far is 145 and number of attacked persons eight thousand.

The Health Secretary while briefing newsmen on Monday emphatically said that "not a single death had occurred in those places due to cholera". He also claimed that the Health Ministry had mobilised all its machinery to control the disease.

However such success stories sound he would like to mention that this government, like its predecessors, has failed to set in motion a full-time vigorous surveillance and reporting system aimed at intercepting and combating the disease at the slightest sign of outbreak. Reports have it that the disease broke out at some places a month ago, while the services started reaching just three or four days ago. The Health Secretary himself, while moving in some affected areas, expressed his dissatisfaction over the preventive measures taken. Any attempt, then, at telling the people that the measures have been timely and adequate will not only be far from convincing, rather it would help spread confusions. The efforts should now be concentrated on improving the service

and controlling the fury of the disease. It is unfortunate that people are still dying of the disease, though the life cycles of infectious diseases are already known to modern medical science and the success of controlling them now chiefly depends on intensifying the preventive measures.

Also we would stress the fact that there is no point in hiding cholera cases, if any, in the country. In the past, of course, the government had reasons to fear both cholera and the consequences of reporting the extent of the disease. For cholera, one of the worst enemies of mankind, not only decimated thousands in this part of the globe, but was responsible for irrational international attempts at containing the havoc wrought by the disease by imposing partial, or even total, trade embargoes.

But over the past decade the situation has undergone radical change. Many countries including the developed ones today are making vigorous efforts to assess and report cholera statistics. But unfortunately we are still busy hiding cholera cases and trying to explain them away as shigellosis (blood dysentery), E.Coli infection, Rota virus, strong diarrhoea, gastroenteritis, etc.

A National Central Programme for Diarrhoeal Diseases and the National Oral Rehydration Programme may have positive effects in educating the populace about the disease and combating cholera outbreaks.

Hiding cholera cases may even backfire, because most of our trading partners report cholera and they also know that the disease is prevalent in Bangladesh. So, they are likely to feel more insecure and behave more irrationally if reports of cholera in Bangladesh come only from unofficial sources and the administration tries to conceal the fact.

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BANGLADESH

BRIEFS

MALARIA IN TANGAIL--Tangail, Apr 7--Mosquito menace has increased in Tangail town recently. Not to speak of night that a man cannot sleep or set at ease without mosquito curtain even in broad daylight. Students and workers are disturbed due to frequent biting by mosquitoes. The uncleaned drains, derelict tanks, water hyacinths and polluted water in ponds are the breeding places of the mosquitoes. But neither the local pourasava nor the local Public Health Department taken any measure to spray insecticides in the town. According to the local doctors cases of malarial fever are detected among the people of the town. [Text] [Dhaka THE BANGLADESH OBSERVER in English 10 Apr 85 p 5]

CHICKENPOX OUTBREAK REPORTED--Rangpur, April 9--Chicken-pox has broken out in Kaunia Upazila. Many people in the upazila have been suffering from the disease. The people of the affected areas became frightened following widespread outbreak of the disease. The Health Department did not take any measure to check the disease, it is alleged. The foundation stone of a child hospital was laid by Mr Tofail Ahmed, President Bangladesh Palli Shishu Foundation at Pirganj recently. The Hospital will be constructed at a cost of about Taka 3,00000. There will be 10 beds in the Hospital. [Text] [Dhaka THE BANGLADESH OBSERVER in English 13 Apr 85 p 7]

CHOLERA 'EPIDEMIC' REPORTEDLY TAKES 74 LIVES--Nilphamari, Apr 11--Cholera claimed 74 lives during last 10 days in two upazilas of Nilphamari district where it broke out in epidemic form. The worst hit areas are in Dimla and Jaldhaka upazilas and the victims mostly are children, it is learnt. When contacted, the Civil Surgeon of Nilphamari district confirmed the outbreak of the disease and said about 300 had been admitted in the different health centres of the district. However, he refrained from saying that the deaths were due to cholera adding that it might have been from gastro enteritis. The village-wise breakup of death figures were 42 from Nawtara union, eight from Balapara union, and Two from Dimla Sadar union. The deaths of 22 children were reported from Dawabari union of Jaldhaka upazila. Lack of medicines needed for treating the cholera patients have worsened the situation there. No government medical team has visited the area so far and no efforts have been made to provide pure drinking water to the village people. [Text] [Dhaka THE NEW NATION in English 12 Apr 85 pp 1, 8]

MORE CHICKENPOX, DIARRHEA--Magura, Apr 11--Diarrhoea and Chicken Pox have broken out in an epidemic form at Sreepur Upazila under Magura district. At least three persons died out of one hundred who were attacked with diarrhoea and chicken pox. Majority of them affected are children, it is learnt. The worst affected areas are Sabdalpur, Nakoi Unions. Acute scarcity of pure drinking water is the main cause behind the outbreak of the disease. Mustard oil, vegetable oil, soyabean oil, ghee, milk, spices and almost every item of daily necessities are adulterated. It is also alleged that saline, vaccine and other medicines are not available with the local Health Department and in the open market. But those can be procured from blackmarket at an exorbitant price. Oral saline is being used in almost all cases which is found not effective in severe cases. [Text] [Dhaka THE BANGLADESH OBSERVER in English 14 Apr 85 p 9]

BLOOD DYSENTERY OUTBREAK--Meherpur, April 21--Eight children died of blood dysentery and another 300 were attacked with the disease during the last three days here. The disease took an epidemic turn due to non-availability of pure drinking water. The children who died were: Nazma, 3, Jabbar, 11, Akkas, 1, Afjal, 2, Akbar Ali, 3, Kibria, 8, and Abdul Ghafoor, 5. The upazila health officer of Gangni has confirmed the outbreak of blood dysentery in the area where also the children were among the worst affected. A medical team has been rushed to the area. The Civil Surgeon of Meherpur has visited the area, it is learnt. [Text] [Dhaka THE NEW NATION in English 22 Apr 85 p 1]

1-20 APR DIARRHEA DEATHS--One hundred and seventy-eight persons died of diarrhoeal diseases out of 8,691 cases from April 1 to April 20 in different parts of Bangaldesh, official source said. Of them 66 persons died in Nilphamari district alone. According to field reports, the majority of diarrhoeal cases were due to shigella or blood dysentery. There were no cholera cases, according to official records. The cause for the spread of diarrhoeal diseases was attributed to absence of pure drinking water and bad sanitation. The majority of the victims were children who, the report noted, were susceptible to diarrhoeal diseases due to malnutrition. [Text] [Dhaka THE BANGLADESH TIMES in English 23 Apr 85 p 8]

MORE ON DIARRHEA EPIDEMIC--Nilphamari, Apr 22--The death toll from diarrhoea and blood dysentery in the district has risen to 100 with 14 more children dying in the last four days in the Sadar and Dimla upazilas. The dreaded diseases that have so far attacked more than 1200 people in the affected upazilas have now assumed an epidemic form in Nowtara and Balapara unions under Dimla upazila. An Epidemic Camp has been opened at Shalahat Primary School of Nowtara union which accommodated only 20 children. A total of 327 others are under treatment in the surrounding areas, according to a list maintained by the camp. Meanwhile, Health and Population Control Minister Major General M. Shamsul Huq yesterday visited the affected areas and the Epidemic Camp. He expressed his dissatisfaction at the facilities for treatment of the patients. The Minister directed the Civil Surgeon of Nilphamari to stay at Dimla and depute more doctors from other upazilas to ensure proper treatment of the affected people. [Text] [Dhaka THE NEW NATION in English 23 Apr 85 pp 1, 8]

DYSENTERY IN PABNA--Pabna, Apr 22--At least 50 persons died of blood dysentery and measles and about 300 more were attacked with above two diseases in villages Darimalanchi, Bhatshala, Malanchi and several other adjoining villages under Sagarkandi, Union Parishad within Sujanagar Upazila of Pabna district during last 15 days. [Text] [Dhaka THE BANGLADESH OBSERVER in English 23 Apr 85 p 1]

BACILLARY DYSENTERY DEATHS--Alamdanga, Apr 22--Bacillary dysentery has broken out sporadically in different parts of Alamdanga upazila. So far, six patients have died of the disease and the affected cases are about 300, it is learnt. Local doctors assert that indiscriminate prescription of anti-biotics by village quacks has strengthened Bacillus Shigella Bacteria group, which is the caused organism of bacillary dysentery. As a result, Amplicillin and Cotrimoxazole which are the specific drugs for the disease are not working. An experienced doctor told this correspondent that if the indiscriminate use of anti-biotics is not stopped, the situation will go from bad to worse in near future. [Text] [Dhaka THE NEW NATION in English 24 Apr 85 p 2]

DIARRHEA IN PIROJPUR--Pirojpur, Apr 27--Fifty-six people have died of diarrhoea and over 1000 others have been attacked with the disease during the last one month in seven upazilas of the district, according to reports received from the affected areas. Lack of adequate medical facilities for treatment of those attacked and scarcity of required medicines have also been reported from different areas of upazilas concerned. The upazilas include Sadar upazila, Swarupkati, Nazirpur, Kaukhali, Bhandaria and Banaripara. The Civil Surgeon of Pirojpur, when contacted, confirmed six deaths from diarrhoea and 200 cases of attack. He also said 59 medical teams have been deployed for meeting the situation. It may be mentioned that cholera claimed about 2000 lives in Pirojpur district last year. [Text] [Dhaka THE NEW NATION in English 28 Apr 85 p 1]

MORE CHOLERA DEATHS--Cholera has reportedly claimed six lives in three upazilas of Perojpur district during last one week, it was learnt here yesterday, reports ENA. Two persons died in Bhandaria, one in Perojpur and three in Mathbaria upazilas. Forty eight others are reportedly attacked with the disease in these upazilas. Nine medical teams have been working in the affected areas to provide medicare to the people. But when contacted, Civil Surgeon, Perojpur told ENA that the bacillary dysentery might be the reason for their death. [Text] [Dhaka THE NEW NATION in English 27 Apr 85 p 1]

MALARIA DEATHS REPORTED--Chittagong, April 27--At least 36 people died and 1500 suffered due to malarial attack in Khagrachhari district during the current month, the district health authority reported today. Terming the malaria situation in the district alarming, the Civil Surgeon of the District said that death toll and cases of malaria patients could be higher since cases were many unreported cases. Nine fresh cases of malaria were admitted to district hospital yesterday. The most affected areas of the district are: Tablachhari, Taindong, Raine, Mukh Pushang and Manikchhari. The civil surgeon said that effective measures had been taken to combat

malaria. He informed that union parishad chairmen had been involved in the programme to eradicate malaria. [Text] [Dhaka THE BANGLADESH TIMES in English 28 Apr 85 p 1]

SKIN DISEASE EPIDEMIC--Habiganj, Apr 28--Skin disease broke out in different areas of Habiganj district in an epidemic form recently. It is reported that different types of skin diseases which broke out in the last winter season are spreading gradually to other areas throughout the district. The Health Department did not take any measure to combat the diseases in which the children are the worst sufferers. It is learnt that necessary medicines are not available in the district hospital and upazila health complexes. The poor people have been suffering for want of proper treatment. [Text] [Dhaka THE BANGLADESH OBSERVER in English 29 Apr 85 p 7]

CHOLERA IN NOAPARA--Noapara (Jessore) Apr 29--Eleven persons have died of cholera during the last one week and many others have been attacked with the disease in nine villages under Abhaynagar upazila of Jessore district and Phultala and Dumuria upazilas of Khulna district, according to reliable reports. The affected villages are Cholshia, Dhopadi, Sirajkeet, Mohakal and Baikara of Abhaynagar upazila, Barapara and Andalia of Dumuria upazila and Dholurgachi and Zamira under Phultala upazila. The Noapara Hospital Authorities, when contacted, maintained that diarrhoea have broken out in some areas of the upazila but there was no cholera attack. About 20 diarrhoea patients were coming to the hospital each day, they said. Some patients admitted to Noapara Hospital complained that they were not getting proper treatment due to lack of necessary medicines. [Text] [Dhaka THE NEW NATION in English 30 Apr 85 p 1]

DIARRHEA, BACILLARY DYSENTERY--Narail, Apr 24--Diarrhoea, bacillary dysentery and chicken pox have broken out in an epidemic form in different areas of Narail district. According to different sources at least 50 persons died out of 2000 persons attacked with diarrhoea and bacillary dysentery in Kalia, Lohagara including Sadar upazila of Narail. According to the Civil Surgeons Office, four persons died out of 226 throughout the district. Acute scarcity of pure drinking water and adulterated food staff are the main causes behind the outbreak of the diseases. The food-stuffs included mustard oil, vegetable oil, soyabean oil, ghee, milk, spices, etc. Our Pirojpur Correspondent adds: Diarrhoea has broken out in some locality of Mathbaria upazila in an epidemic form. During the last 3 months five persons died of diarrhoea and 160 others attacked with the disease in this upazila. The worst suffering area is Sapleza Bazar. [Text] [Dhaka THE NEW NATION in English 29 Apr 85 p 2]

MORE DYSENTERY DEATHS--Jhenidah, Apr 24--Five more babies died of bacillary dysentery in last three days in Shailakupa upazila raising the total death toll so far to 17. During this time, more than 500 were attacked with the disease, putting the total number of attacked persons, mostly babies, at 1,500 till yesterday. The worst affected village is Jangalia where two babies died and more than 200 were attacked during the last three days. When contacted, a medical officer of Shailakupa health complex, who is working in the affected area, told this correspondent that traditional

drugs were not properly responding to cure the disease. He said without proper diagnosis of the disease by a competent medical team they were left with no choice but to go for quick method of treatment. Our correspondent from Meherpur reports: 28 children died of blood dysentery and another 300 were attacked with the disease recently. Our Madaripur correspondent adds, diarrhoea had broken out in an epidemic form in Shibganj upazila where it already claimed six lives and attacked another 200 persons during the last few days. The affected villages are Baskandi, Bondukhula, Bhandarikandi, Dattapara, Bahertala, Kharekandi and Raghunatpur, according to an official source. [Text] [Dhaka THE NEW NATION in English 25 Apr 85 p 1]

CHICKENPOX, DIARRHEA DEATHS--Jamalpur, Apr 30--Chicken-pox and diarrhoea have broken out in an epidemic form in Jamalpur district. At least two persons died out of 100, who were attacked with diarrhoea and chicken-pox. A majority of affected are children, it is learnt. The worst affected areas are Madarganj and Dewangonj upazilas. Acute scarcity of pure drinking water is the main cause behind the outbreak of the disease. Almost every item of daily necessities including edible oil, ghee, butter, spices are adulterated so that consumers contacted the diseases. It is also alleged that saline, vaccine and other medicines are neither available with local health department nor in the open market. But the same can be procured from blackmarket at an exorbitant price. Oral saline is being used in almost all cases but it is alleged that the same has not been found effective in several cases. [Text] [Dhaka THE NEW NATION in English 1 May 85 p 2]

CSO: 5450/0171

JPRS-TEP-85-010
14 June 1985

BOTSWANA

BRIEFS

OUTBREAK OF MALARIA IN TSWAPONG--Mahalapye: A 17-year-old boy from the Tswapong area died of malaria at the Mahalapye Hospital while eight other people are being treated for the disease, according to the matron of the hospital, Miss Ednah Monyena. She said that the outbreak of malaria was reported in Pilikwe, Kudumatse, Makwate and Lerala last week, and that so far nine people have been admitted to the hospital in a "really bad condition." Miss Monyena however, said that they were now in a satisfactory condition. The patients comprise seven men and one woman. The matron said that the outbreak of malaria could be linked to the heavy rains which fell in the Tswapong area last month, resulting in renewed breeding of mosquitoes. [Text] [By Moagi Lefenya] [Gaborone BOTSWANA DAILY NEWS in English 22 Apr 85 p 6]

CSO: 5400/136

JPRS-TEP-85-010
14 June 1985

BRAZIL

AIDS INCIDENCE SECOND ONLY TO U.S.; INCREASE IN SAO PAULO

Research, Awareness Needed

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 4 May 85 p 10

[Text] Dr Gerson Oliveira Jr., of Bahia, who recently returned from Miami University where he did research on AIDS, said yesterday in Salvador that Brazil has the second highest incidence of the disease, ranking only slightly below the United States, where it is spreading in alarming proportions.

Dr Oliviera, who is a hemophiliac, has specialized in hematology. For 19 months he worked in the Immunology Division of the Miami University Medical Department. He said that health authorities should be prepared to cope with AIDS as a serious public health problem. He explained that of the 250 cases recorded in Brazil, half occurred over three years and the other half occurred in the last three months.

As the disease spreads, said the Bahia physician, Brazilian medicine still has much to learn in order to be in a position to cope with the problem. He said that while in the United States, there is easy access to everything that has been written on the disease, "authorities here have been slow to study it, given its epidemic nature."

Round Table Discussion Held

Sao Paulo FOLHA DE SAO PAULO in Portuguese 25 Apr 85 p 33

[Excerpt] Physicians and specialists of the Sao Paulo Medical Association met last night to discuss the AIDS outbreak in Sao Paulo. It was a round table discussion including an immunologist, a gastroenterologist, an infections specialist and a clinical dermatologist, in addition to representatives from the Secretariat of Health. Prof Valeria Petri, 37, of the Sao Paulo Medical School, moderated the meeting.

According to Prof Petri, the purpose of the round table was "to try to disseminate recent experience with AIDS in Brazil. In Sao Paulo State alone, there are one or two new cases daily, which is too many." Hospitalization was one of the topics brought up to make clear that there is no risk to doctors or other medical personnel, which is a reason given in the press for refusal on the part of hospitals to admit AIDS patients.

"If hospitalization of an AIDS patient entails a risk, it is for the patient, since his immune defenses are greatly impaired," Dr. Petri explained.

8844

CSO: 5400/2054

BRIEFS

1984 MARANHAO MALARIA INCIDENCE--Approximately 24,000 cases of malaria were registered in Maranhao in 1984, double the number of cases in 1983, according to Dr Henrique Jorge dos Santos of Sucam. He blamed the increase upon the return to their home towns of miners who were working in the Cumaru region, north of Para. Henrique dos Santos explained that the incidence of malaria began to grow frighteningly beginning in the mid-70's with the start-up of the great cattle ranch projects in Amazonia and Maranhao, natural habitats for the illness. The number of cases jumped then to an average of 12,000 per year, a number now increased by the return of the miners, who represented 57 percent of those afflicted with the illness in 1984. According to the doctor, the number of cases will probably increase this year as a result of the floods. "The problem will worsen when the waters begin to recede. At that time, foci of malaria and other illnesses related to the flooding may emerge." [Text] [Sao Paulo FOLHA DE SAO PAULO in Portuguese 16 Apr 85 p 21] 12857

MENINGITIS DENIED IN SANTA CATARINA--"In contrast to news releases which have been issued through some Santa Catarina newspapers, there has been no beginning of an epidemic of meningococcal meningitis. Only one isolated case occurred in greater Florianopolis. The appropriate investigation is under way and preventive measures are already being provided to the family members who had direct contact with the sick child." This information came from the head of the Service for the Control of Acute Contagious Diseases of the Santa Catarina Department of Public Health, Anacleto Rossetto, who added that this year, since January, there have been a total of seven cases of meningococcal meningitis in the state, of which three were fatal. In all of the cases, according to Anacleto Rossetto, all of the appropriate preventive measures were taken as recommended by the Ministry of Health. [Text] [Brasilia CORREIO BRASILIENSE in Portuguese 16 Apr 85 p 21] 12857

EFFORTS TO CONTROL AIDS--Concerned over the increase of AIDS cases in Brazil during the past few months, the Ministry of Health has decided to act, and next week Minister Carlos Sant'Anna will sign a decree which defines the strategy for actions to control the disease; the AIDS education campaign will be aimed only at those groups most at risk: those suspected of having the disease, homosexuals, drug addicts, and hemophiliacs. The Ministry of Health considers AIDS to be a public health problem, but of low priority. And, although the number of cases registered to date is not impressive in national terms, the rate of spread of the disease worries the health authorities, since, of the

total of 250 cases registered in Brazil, half occurred in three years, and the other half in the last three months, with the discovery of at least one case per day. For this reason, AIDS cases will now have to become part of the official notification list of contagious diseases, transmitted by telephone to the Ministry by the State Secretary of Health. The first formal meetings for the launching of the campaign for health education will be held on the 21-23 of May in the ten states of the South, Southeast, Goias, Pernambuco, and Bahia where the incidence of cases is the highest. Agnaldo Goncalves, head of the Dermatology Department of the Ministry of Health considers it necessary to adopt, on a widespread and permanent basis, measures of health education for the groups at risk, in order to avoid the transmission of the disease. Such people are taught to restrict sexual activity to a single partner; to avoid blood donations; to seek out health services immediately if they suspect the illness; give up the use of drugs, or at least use only one's own syringe, or disposable ones, and, in the case of hemophiliacs, use industrially treated products so as to reduce the risk of the disease. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 27 Apr 85 p 14] 12857

MALARIA INCIDENCE--The forum on Childhood Infectious Diseases held in Rio de Janeiro publicized doctors' concern for the 300,000 new cases of malaria recorded in Brazil in 1984 in virtually all parts of the country. This belies malaria's status as a disease which had been eradicated in Brazil. The question came up at the scientific meeting in connection with pediatricians' concern about the fact that children are the most susceptible to the disease. The number of recorded cases of malaria in children is growing from year to year in Brazil. The president of the Rio Pediatricians' Association, Myrthes Amorelli Gonzaga, stated that the foci of malaria, which used to be peculiar to the Amazon basin, have now spread to nearly all states because sanitation conditions in many areas are not up to par. Bogs, rivers and marshes are the usual breeding sites for mosquitoes, which transmit malaria. Several malaria cases were recorded in 1984 in Rio, Sao Paulo and Minas Gerais. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 3 May 85 p 14]

8844
CSO: 5400/2054

WINDSOR HOSPITAL AGAIN ATTACKS LEGIONELLA BACTERIA

Windsor THE WINDSOR STAR in English 18 Apr 85 p A3

[Text]

Hotel Dieu has launched another assault on legionella, the persistent bacteria believed to have caused five cases of legionnaire's disease, leading to one death, last year.

In a bid to annihilate the bacteria from its water system, the hospital increased the chlorine content in its water to four parts per million Tuesday, said Roman Mann, executive director of the hospital. The chlorine level of municipal water is one part per million.

In about a week, the hospital will boost the temperature of its hot water system to 77C (170F) for 48 hours, Mann said.

THE HOSPITAL will then change all its shower heads, where the bacteria tends to collect. It will then flush the system with hot water for another 48 hours, Mann added.

Mann said there have been no more reported cases of legionnaire's disease at Hotel Dieu since November, but the bacteria is still in evidence.

"It's an environmental problem," Mann said. "We're going to give it our best shot. We want an environment in which you can feel comfortable."

Previous attempts to destroy the bacteria simply by flushing the system with water have failed. The procedure would cause the legionella to disappear for a time, but later reappear.

The hospital will now "shock treat" the system with both chlorine and hot water. The chlorination approach, recommended by medical officer of health Dr. Joseph Jones, has been "very effective" in fighting the bacteria, Mann said.

THE HOSPITAL is spending about \$55,000 on equipment to raise the chlorine levels, he said, and it also spends about \$504 per month on chlorine.

The chlorine will eventually be lowered to two parts per million, Mann said. Throughout the procedures, the bacteria will be continually monitored.

BLOOD TESTING OF DONORS TO BEGIN FOR EVIDENCE OF AIDS VIRUS

Ottawa THE CITIZEN in English 15 Apr 85 p A3

[Text]

Health officials are reaching out to blood donors, university students and prostitutes in hopes of preventing AIDS from becoming a threat to the population at large.

This summer, the Canadian Red Cross will begin testing the blood it gets from donors for evidence of the AIDS virus. The tests, likely to cost \$10 million a year, are similar to those introduced in U.S. blood banks.

Half a million pamphlets about AIDS published by the federal government will be included in the envelopes of coupons to be distributed to students this fall through university bookstores.

And blood samples from 200 prostitutes in major cities will be tested in hopes of finding out whether casual heterosexual contact is apt to spread AIDS in addition to diseases such as syphilis and gonorrhoea.

Dr. A. J. Clayton, head of the federal government's Laboratory Centre for Disease Control in Ottawa and a member of the federal advisory committee on AIDS, says the average Canadian has little to fear — for the time being.

"We still only have 205 cases in Canada in a three-year period," he said in a recent interview. "It's very important to keep this in perspective. We kill 4,500 people on the roads every year in Canada."

At the same time, Clayton and many other experts are concerned that more cases of AIDS might start appearing in people outside the so-called high-risk groups.

Homosexual and bisexual males have accounted for nearly three of every four cases of AIDS reported in Canada since the first case three years ago.

People who use illegal drugs intravenously and hemophiliacs are also high-risk groups, although only a handful of the Canadian residents who got AIDS are in one of these categories.

Later this spring, heat treatments will be introduced to make sure the special blood-clotting agent used by hemophiliacs is free of active AIDS virus.

AIDS — short for Acquired Immune Deficiency Syndrome — is a condition that destroys the body's natural ability to fight disease and infection. AIDS victims often die from forms of pneumonia or cancer rarely seen in ordinary people.

Scientists feel confident they have found the virus that causes AIDS and have identified the antibodies that the body produces when exposed to the virus.

What has them alarmed is the results of recent tests that suggest the virus is much more widespread than originally suspected.

Clayton's best guess at the moment is that perhaps 10,000 Canadians — mostly male homosexuals — have AIDS antibodies in their systems. Many are probably carriers of the active virus as well, and could infect others.

Perhaps five to 10 per cent of the 10,000 will eventually come down with full-fledged cases of AIDS within the normal incubation period of two to five years, he estimates.

Meanwhile, recent reports from central Africa, the area where AIDS probably had its origin, show the disease isn't necessarily linked to homosexuality.

Clayton says the number of women with AIDS in central Africa is nearly as high as the number of men. The disease is also found in female prostitutes and may be passed on the same way as any other sexually transmitted disease.

In Canada, the 30 or 40 blood samples that have been collected so far from prostitutes have all turned out to be free of AIDS antibodies, but samples from other volunteers have yet to be collected and tested.

There is no cure for AIDS, and Clayton doubts any vaccine to protect members of high-risk groups against the disease will be developed in the immediate future.

However, the booklet to be given to university students in the fall does list several precautions to help curb the spread of AIDS:

- Don't share needles or syringes for drugs.

- Avoid sexual relationships with people who have or who are suspected of having AIDS.

- If you are a male homosexual, limit the number of your sexual partners and use condoms when you have sex.

COURT RULES FOR SKIN CANCER VICTIM OF CHALK RIVER CLEANUP

Toronto THE GLOBE AND MAIL in English 11 Apr 85 p 19

[Text]

OTTAWA — A Federal Court of Appeal decision ordering the Pension Review Board to reconsider a veteran's claim that his skin cancer was caused by exposure to radiation while on military duty could affect dozens of other claims, a pension expert says.

"I think it is a very significant decision, because this was a test case for a number of people," said Laurence Hanway, a lawyer who retired as chief pensions advocate for the federal Government last December.

Mr. Hanway said 25 to 30 cases could be affected by the court's verdict, which he described as "tantamount to granting the pension."

For Bjarnie Paulson, the 66-year-old Royal Canadian Air Force veteran who has doggedly pursued his claim through seven levels of adjudication, the decision means vindication.

"I knew all along that I was right on this thing," the Second World War veteran

said in a telephone interview from Montreal. "I could have given up, but the idea right from the start was to help others."

The case, one of the most protracted in the history of the Canadian Pension Commission, traces its roots to 1964, when Mr. Paulson had his first two operations for skin cancer. He said he now has had surgery almost 100 times.

"I've been in the hospital, so much that people think I work there," he said. "I think I've been everywhere but the maternity ward."

Mr. Paulson said he developed a form of skin cancer called basal cell carcinoma because of was exposed to radiation while helping clean up after a 1958 accident at a Chalk River, Ont., nuclear reactor.

Both the pension commission and the review board (an independent appeal tribunal that is the final authority on matters of pension entitlement)

rejected his claim, deciding it was "highly unlikely" that he developed cancer because of the 12 days he spent at Chalk River.

Mr. Paulson, however, continued to argue that tiny, radioactive alpha particles became hidden in the pores of his body, and were not detected by monitoring equipment. He maintains that the particles continued to bombard his body with radiation long after he left Chalk River, and that this explains why cancer has been discovered in his scalp, nose and anus.

The court, noting the review board's conclusion that the steps taken to remove radiation from servicemen after the Chalk River cleanup were successful, said it ignored "uncontradicted evidence" that monitoring systems in 1958 were unable to detect alpha particles in the skin.

Mr. Paulson has had to undergo extensive plastic surgery after having part of his nose removed, and said his ordeal continues.

JPRS-TEP-85-010
14 June 1985

COLUMBIA

BRIEFS

DENGUE FEVER OUTBREAK--Florescia, 5 May--A dengue fever outbreak has killed five people in Caqueta Department in the last few days. According to the reports, 200 people have been treated for the sickness during the last 15 days. [Summary] [Bogota EL TIEMPO in Spanish 6 May 85 p 7-8 PA]

GASTROENTERITIS OUTBREAK--Health authorities have reported that a gastroenteritis outbreak has killed 35 children in Barranquilla so far. Authorities added that 6,000 children have been treated in the past few months in the city. [Summary] [Bogota Cadena Radial Super in Spanish 1730 GMT 19 May 85 PA]

CSO: 5400/2056

JPRS-TEP-85-010
14 June 1985

DOMINICAN REPUBLIC

BRIEFS

VACCINATION CAMPAIGN--The Secretariat of Public Health announced yesterday that on 18 and 19 May it would carry out this year's deparasitization campaign, as well as vaccinating against diphtheria, whooping cough and tetanus throughout the national territory. The announcement was made by Diego Hurtado Brugal, sub-secretary of health and acting secretary since the regular secretary left for Switzerland last week. The acting health secretary also reported that on 14 May the scientist Albert Bruce Sabin, discoverer of the vaccine which carries his name, will arrive in the country. It will be his second visit. Hurtado added that Sabin, Nobel prize-winner in medicine, is coming by invitation of the government to observe and collaborate in the massive campaigns of deparasitization and vaccination against tetanus, whooping cough, diphtheria and polio. A note from Public Health said that in the first phase of the DPT vaccination 400,000 doses will be used, and they will be repeated during the month of June to complete the total dosage required to prevent these diseases and to protect the children from 2 months to 2 years of age. It also said that the Secretariat of Public Health has 2,800,983 doses of measles vaccination as well as 1,739,000 doses of tetanus antitoxin in cold storage. [Excerpt]
[Santo Domingo EL CARIBE in Spanish 30 Apr 85 p 2]

CSO: 5400/2051

COMMITTEE VOTES FUNDS FOR AIDS BLOOD TESTS

Hong Kong SOUTH CHINA MORNING POST in English 19 Apr 85 p 16

[Text]

The risk of catching AIDS through blood transfusions will be greatly reduced when a blood screening programme is set up in the next four months.

The Finance Committee allocated \$4,237,000 to fund the blood test. The allocation will help to set up the programme for donated blood in the Red Cross Blood Transfusion Service to help prevent the transmission of Acquired Immune Deficiency Syndrome (AIDS) through blood transfusion.

The committee also approved the provision of \$4.904 million as the annual recurrent expenditure for the programme from 1986/87 and thereafter.

A test for antibodies to the AIDS virus using the Enzyme Linked Immunosorbent Assay (ELISA) technique has recently been licensed in the United States and is now commercially available.

For this current fiscal year, a sum of \$3.133 million will be used to set up a screening programme for all the blood donated at the Red Cross Blood Transfusion Service.

Under it, all the blood collected would be

tested for traces of the AIDS virus and blood found to be infected would be discarded.

The Finance Committee had approved a sum of \$1.104 million for the Medical and Health Department to set up screening and diagnostic facilities at its laboratories, including the Government Virus Laboratory at Queen Elizabeth Hospital and the Government Institute of Pathology at Princess Margaret Hospital and Yau Oi Polyclinic.

These facilities will enable blood tests for AIDS and tests for studying the defence mechanism of the body and its deficiency to be carried out at Government laboratories.

The tests would be given on a doctor referral basis to cover individuals belonging to the high risk groups as well as for patients suspected of having AIDS.

Replying to Miss Lydia Dunn who asked whether the test was 100 per cent free of AIDS infection, the chairman of the Finance Committee, the Chief Secretary Sir Philip Haddon-Cave, said the test did not have a long track record and he would ask the Director of Medical and Health to assess it and give his opinion.

CSO: 5450/0142

MEDICAL WORKER TELLS PLANNED EXTENT OF AIDS TESTS

Hong Kong SOUTH CHINA MORNING POST in English 25 Apr 85 p 10

[Text]

The Red Cross will employ six laboratory technicians to staff its AIDS screening programme in Hongkong blood banks.

The director of the society's blood transfusion service, Dr Susan Leong, said yesterday the technicians will be expected to perform 500 tests a day.

AIDS, acquired immune deficiency syndrome, has been spread in some cases through blood transfusions in the United States and Australia in the past two years.

Dr Leong said the Red Cross will use the ELIZA (enzyme linked immunosorbent assay) test method, recently approved by US Government health authorities, to vet all donations after August.

"We expect it to take until then to get everything ready," she said.

"Once we do, all donations should be screened."

The ELIZA test is now in commercial production in the US and is designed to detect antibodies produced by the weakened immunity systems of AIDS victims.

The Finance Committee last week allocated \$4,237,000 to the test programme, allowing the Red Cross to finalise plans to protect its blood supply from contamination.

Dr Leong said the transfusion service has received two ELIZA kits, marketed by sepa-

rate US pharmaceutical manufacturers, for evaluation.

Other brands will be examined before a decision is made on which will be used in Hongkong.

She said: "We are still to receive kits from the manufacturers and we want to compare them carefully."

The Red Cross also hopes to recruit the six laboratory staff required for its AIDS task force locally.

Dr Leong said the technicians will work exclusively with the ELIZA screens and will be trained by the Red Cross to operate the tests.

Meanwhile, the condition of Hongkong's only known AIDS patient remains stable.

A Medical and Health Department spokesman said the man, believed to be 33 years old, is in a satisfactory condition in Princess Margaret Hospital.

He was readmitted on April 17 with a fever after being allowed to return home for a short time.

Doctors have not been able to ease the fever and have ordered further tests, the spokesman confirmed.

One man, a Chinese sailor, has died of the disease in Hongkong this year.

HEALTH DIRECTOR SAYS AIDS SPREAD UNDER CONTROL

Hong Kong HONGKONG STANDARD in English 4 Apr 85 p 1

[Text]

ALL'S well with AIDS control and a legislation to help minimise its spread is not necessary at this stage.

The Director of Medical and Health Services, Dr. K.L. Thong, told the Legislative Council yesterday: "I am satisfied that we have taken all appropriate and effective measures to contain AIDS in Hongkong."

A four-pronged approach — intensified surveillance, health education, information and protection for health care staff and safeguards for blood supply — has been generally seen as sufficient in controlling AIDS.

Nominated member, Mrs Pauline Ng, in a supplementary question asked: "How about legislation governing persons who are liable to this disease to protect the public?"

Thong replied: "It is not at all necessary at the moment to include AIDS as a notifiable disease, (because of) the epidemiology and the fact that there are only two cases so far. We will be monitoring the situation."

Thong said AIDS could be included as a notifiable disease when the time comes through current legislation controlling infectious diseases. These are the Quarantine and Prevention Ordinance and the Prevention of Spread of Infectious Disease Regulation.

Thong said that all the measures being undertaken to control AIDS in Hongkong are similar to those in advanced countries.

He added that the situation is closely monitored by an expert committee set up in November, comprising medical experts, senior MHD administrators and the medical faculties of Hongkong University and the Chinese University.

A Chinese sailor died last February of this dreaded disease which robs the body of its natural immunity against infections and disease. A second AIDS victim, also Chinese, was subsequently released from

hospital and has since been labelled an "AIDS carrier." Both cases were believed to be "imported," or contracted from abroad.

AIDS, or acquired immune deficiency syndrome, has so far killed at least 8,000 people worldwide. High-risk groups vulnerable to contracting the disease are homosexuals and intravenous drug users who share needles.

Because it can also be transmitted by blood, haemophiliacs who receive regular blood-clotting factors are prone to catching the disease.

Thong stressed that health and laboratory workers have "little risk" of contracting AIDS if proper precautions are taken.

"Guidelines to the health care staff who are involved in handling patients and materials have been issued to all public and private hospitals," he said.

Screening of blood at the Red Cross Blood Transfusion Service will also start in four months upon approval of funding for the service.

"This will ensure a safe blood supply to the recipients of blood," he said.

He added that a "green card" system adopted by the BTS for potential donors had worked satisfactorily so that members of high risk groups could not donate their blood.

Thong said an "effective surveillance system" for the detection, report, investigation and treatment of all communicable diseases also existed in the territory.

"(With) this extensive network of public hospitals and clinics...the health authority may be alerted to deal with these infectious diseases, including AIDS," he said.

Part of health education on AIDS is a 24-hour hotline service for accurate and up-to-date information on the disease. The service is available in both Chinese and English. It has so far received more than 800 calls.

SOUTHEAST ASIAN MIGRANTS CAUSE INCREASE IN TB RATE

Hong Kong HONGKONG STANDARD in English 27 Apr 85 p 1

[Text]

MIGRANTS from Southeast Asia and China have contributed to the 7.4 per cent rise of tuberculosis cases last year, the Director of Medical and Health Services, Dr K.L. Thong, said yesterday.

Speaking at the annual general meeting of the Hongkong Tuberculosis, Chest and Heart Diseases Association, he said reported cases increased from 7,301 in 1983 to 7,843 last year, with the incidence rate rising from 137.4 cases to 146.2 per 100,000 people.

The Standard was earlier told tubercular migrants came from China, Indonesia and the Philippines, but no breakdown of nationality was released.

The increase last year reversed the declining trend of TB cases since 1961. From a high of 12,584 in 1961, cases steadily decreased year after year until reported cases were only 7,301 two decades later, a 72 per cent decline.

Thong, who is also the president of the association, said: "An important factor is the movement of population

from other parts of the region where the incidence of the disease is higher.

"Such evidence is borne out by a survey done in the United Kingdom which shows the effect of immigration on the epidemiology of the disease."

Thong was, however, encouraged by the fact that the death rate from TB, which used to be Hongkong's number one killer, continues to decline in recent years.

TB deaths dropped from 446 in 1983 to 420 in 1984, a six per cent decrease. He attributed this to efficient treatment.

"This has shown that the disease is curable and reflected the efficacy of the drug treatment regime in Hongkong. Other preventive and control measures such as BCG vaccination and case findings were carried out as usual," he said.

Thong also said lung cancer claimed a significant toll on lives, as a total of 2,128 people died from it last year. The figure was 17 times more than the 1983 figure of 126

deaths.

He urged more research to improve therapy of lung cancer.

He added that the anti-smoking campaign was "fruitful," as there has been a "definite reduction" in smokers and cigarette consumption.

On silicosis (silicon-related tuberculosis), Thong said the government and the Pneumoconiosis Compensation Fund Board paid out a total of \$99.9 million last year to 2,617 workers.

The TB, Chest and Heart Diseases Association is also in the midst of a redevelopment programme of the Ruttonjee Sanatorium, to be turned from a 280-bed TB institute into a 432-bed general hospital by 1988.

Site formation work costing \$4.25 million began last month, while piling will begin by September. Construction of the superstructure of the new hospital building and staff quarters will start next year.

Thong added that heart

diseases are increasing in Hongkong, with 44.4 deaths per 100,000 people recorded in 1983. This was in contrast to 15.1 deaths per 100,000 in 1969.

The association's Grantham Hospital performed 52 coronary bypass operations in 1982-84, without any deaths.

Re-elected officers of the association's board of directors were Mr R.M. Shroff (chairman), Mr Tseng Cheng, Mr Q.W. Lee, Mr Leo Lee (vice-chairmen) and Sir S.N. Chau, Professor G.H. Choa, Mr Shum Wai-yau, Professor G.B. Ong and Mr Li Chung-ching (vice-presidents).

Board members are Mrs Jane Akers-Jones, Mr A.S.K. Au, Mrs Marjorie Bray, Dr T.C. Cheng, Mr Raymond Kwok, Mr Leo Lee, Mr Q.W. Lee, Mr Lui Che-woo, Dr Joseph Pan, Mr R.M. Shroff, Mr Shum Chai-sang, Professor David Todd, Mr Tseng Cheng, Professor John Wong, Mr Woo Po-shing and Mr Dakchison Yiu.

OFFICIAL NOTES LOW RATE OF HOSPITAL CROSS INFECTIONS

Hong Kong SOUTH CHINA MORNING POST in English 2 May 85 p 11

[Text]

The average rate of cross infections in hospitals is two to three per cent, compared to five to six per cent in the United States.

The figures were disclosed by the Director of Medical and Health Services, Dr K. L. Thong.

He said there was always the chance of cross infection in any hospital but usually at a low level.

Replying to Dr Henrietta Ip on the number of outbreaks of infections last year, Dr Thong said there had been some outbreaks but of a rather isolated nature.

Dr Thong said measures to control and prevent cross infections were constantly and regularly monitored by special infection control committees in major hospitals and management committees in other hospitals.

In reply to a question from Dr Ho Kam-fai, Dr Thong said the control and prevention of cross infections had always been an important aspect of hospital practice and administration.

"Thus, measures to identify, prevent and control hospital acquired infections are

normally undertaken by all hospital administrations," he said.

Dr Thong said hospital management committees were responsible for overseeing the normal medical, nursing and administrative procedures for infection control purposes.

These committees also considered and regularly implemented measures considered necessary for improvement, he added.

Dr Thong said additional provisions were made for the care of paediatric patients, including the establishment of milk kitchens, neo-natal intensive care units for premature babies as well as isolation facilities.

Dr Thong said the measures undertaken by all hospital administrations to control and prevent hospital acquired infection included surveillance, education and protection for staff, and policies and guidelines for prevention and control of cross infection.

Surveillance is carried out for the purpose of reporting, collecting and compiling relevant data on hospital infections.

"Such data provides useful information on the incidence, trend and pattern of infection and assist hospital administration in assessing the effectiveness of regular preventive measures," he said.

Dr Thong said there were special measures to educate and protect staff.

Apart from training, he said, special lectures were organised and guidelines on precautionary measures were issued in respect of certain diseases of special interest such as hepatitis B and AIDS (acquired immune deficiency syndrome).

Regarding the adequacy of isolation facilities for paediatric patients in old hospitals, Dr Thong said such special facilities were provided in all hospitals and these included isolation wards, side wards and isolation rooms.

And where necessary infectious cases can also be treated at the infectious diseases unit of Princess Margaret Hospital.

"I am satisfied generally there are adequate provisions to isolate babies who need these facilities," he said.

EDITORIAL NOTES HEIGHTENED RISK OF MALARIA

Hong Kong HONGKONG STANDARD in English 12 Apr 85 p 9

[Editorial]

[Text]

THE UGLY spectre of malaria has raised its head here again. According to Deputy Director of Medical and Health, Dr Lee Shiu-hung, the boosted volume of tourist traffic to and from Hongkong in recent years has heightened the risk of the disease here.

Lee particularly mentioned the danger of cases being imported into Hongkong by visitors from Southeast Asian countries where malaria is endemic. And the situation has been exacerbated, he said, by the increase in recent years of the number of Hongkong people going to China and of Chinese visitors coming here.

Last year, Hongkong reported 113 cases of malaria of which 10 were locally contracted and 101 imported. The other two were relapses. In 1983, there were 125 cases reported of which 30 were of local origin.

Anti-malaria drives are, whether we like them or not, going to remain a feature of Hongkong life for years to come.

"The world-wide war against malaria is going to take a very long, sustained effort and a comprehensive approach," one expert said. "I don't think you'll find many people predicting victory in any definite period."

As medical scientists announce new strides towards developing a vaccine against the disease, public health experts are reminding them that victory over malaria is less easily achieved than laboratory break-throughs.

The control of this parasitic disease is hampered not only by its complicated life cycles, but by formidable political, social and economic barriers.

History attests to repeated set-backs.

When the World Health Organisation launched its malaria eradication campaign in the 1950's, it relied on insecticides,

particularly DDT, to kill the mosquitoes that spread malaria, and drugs such as *chloroquine*, to treat victims.

The one-two punch was a success. Malaria was driven out of almost 80 per cent of the area it had infected.

By about 1970, however, mosquitoes had become resistant to the insecticides, malaria parasites had become resistant to the drugs, over-confident and thrift-conscious governments had cut back eradication efforts, and various wars, political crises and migrations of people into infested areas had sent the toll bounding upwards.

Today, experts estimate that there are about 300 million new and recurring cases of malaria world-wide each year, roughly a doubling over the past decade. Africa accounts for more than half of those cases and a million deaths each year, mostly among infants and young children.

While malaria, dengue fever and filariasis are the most serious diseases spread by mosquitoes, some species can also transmit several types of encephalitis, a potentially fatal viral infection of the brain.

The early stages of growth of the bug are spent entirely in water. And it is in these early stages that mosquitoes can be most easily controlled by eliminating standing water, or by treating stagnant water with a fuel oil or insecticide.

From New Delhi, meanwhile, comes the encouraging news that Indian scientists are studying the possibility of controlling malaria by using a species of mosquito which eats the *larvae* of disease carrying mosquitoes.

It would be fitting if this mosquito-borne scourge of the developing world were to be defeated by another mosquito developed through dedicated research by scientists from one of the poorer nations.

CSO: 5450/0140

HEALTH MINISTER DISCUSSES DISEASE PREVENTION

New Delhi PATRIOT in English 17 Apr 85 p 8

[Text]

Health and Family Welfare Minister Mohsina Kidwai admitted in the Lok Sabha on Tuesday that malaria had returned on a wide scale but blamed the State Governments for doing little to control the disease.

"If the States arrange minimum three sprays on time (to kill mosquitoes) there is no reason why malaria cannot be contained", she said replying to a debate on the demands for grants for her Ministry. The grants were later approved after all cut motions were rejected.

Referring to criticism by members, Mrs Kidwai said it was true that the incidence of malaria was on the rise. In 1965, as many as one lakh cases were registered. All necessary steps, including tests of blood samples, were being taken right from the Primary Health Centre level to tackle the disease.

She said the problem was arising due to industrialisation and paddy fields serving as breeding grounds of mosquitoes. Malaria could be controlled to a great extent if the States arranged anti-mosquito spraying. But they were ignoring it despite repeated warnings by the Central staff.

The Health Minister disclosed that immunisation of children against measles had now been added to the programme already in operation in which they were being immunised against tuberculosis, tetanus, polio, diphtheria and whooping cough at 0-1 age. Expectant mothers

were also being given similar preventive dosages.

Mrs Kidwai told the House that during the Seventh Plan, it was proposed to supply only iodised salt to the entire population as a safeguard against goitre which had taken roots in certain parts of the country. The addition of iodine to the common salt she hoped would check the disease.

The Government also proposed to set up a large number of blood banks throughout the country during the current plan period. Presently, storing of blood was posing a big problem due to lack of facilities.

The Minister denied that the country's hospitals were using drugs which had been totally banned in other countries. Certain drugs might have been banned in a few countries but they were being prescribed in many other countries. Moreover, she said, no drug was allowed to be used in India without getting the approval of experts.

Regarding complaints about sub-standard drugs, Mrs Kidwai said though the drugs supplied to hospitals came from the public sector IDPL, States were regularly being asked to take all measures to check spurious drugs from other sources.

Mrs Kidwai expressed confidence that the country would achieve its objective of providing health for all by 2000 A.D.

She said that Rs 6000 crore were allocated for health during the sixth Five Year Plan. The allocation for the seventh Plan was expected to be Rs 9,000 crore, she said.

CALCUTTA HEPATITIS 'EPIDEMIC' INVESTIGATED

Calcutta THE TELEGRAPH in English 21 Apr 85 p 7

[Article by Kanchan Gupta and Barun Ghosh]

[Text]

Early one day in the first week of April, Sheikh Abul Hossain, a 28-year-old resident of Picnic Garden in east Calcutta, was walking down the road when a friendly local doctor spotted the yellow tinge in his eyes. Later the same day, Abul Hossain was told by the doctor after a preliminary examination that he was suffering from infectious hepatitis. He was immediately prescribed a controlled diet and advised to take rest.

Manju Naskar, 28-year-old mother of two children and a resident of the adjacent Kasba area, had come down with the same disease in the middle of February. She is yet to recover fully. Alope Mondal, a 24-year-old resident of the same area, has been suffering for the last one month. Jitendra Nath Saha is yet another victim who resides in the nearby Tiljala area.

Picnic Garden, Kasba, Tiljala, Topsia. These are the various areas which make up east Calcutta—the part of the city which is reeling under a breakout of infectious hepatitis. Local doctors say one fresh case is reported every day, which would mean that over the last three months 90 cases have been reported in this part of the city alone. The disease has not spared central Calcutta either. Reports have come in from Esplanade East, Lenin Sarani and some other areas.

Although the state government insists that the outbreak has not reached the proportion of an epidemic, turning a Nelson's eye to it can result in a situation similar to that of Delhi in 1956, when over a thousand people died of the disease, or more recently in Gujarat where at least 700 people died last year between April and July.

The last time Calcutta witnessed a similar outbreak was in 1980. At least 266 people, according to official estimates, were affected between January and April within the city limits. Of these, 260 cases were reported from Rambagan area in north Calcutta. Later, the outbreak spread to east and central Calcutta. Officials put the deaths at four while local residents claimed higher figures.

"The outbreak has not reached an alarming height. It is very much under control," says the state health minister, Dr Ambarish Mukherjee. A similar view was expressed by a top expert on viral diseases who prefers to remain anonymous. "Every year we get to hear of infectious hepatitis cases. This is an annual feature. In fact, the incidence of viral hepatitis in Bombay is four times higher than that in Calcutta. Delhi also has a higher incidence of viral hepatitis," he says.

According to him, the deaths of state food secretary Ashoke Chatterjee's son and

the joint director of the state handloom corporation R.N. Dutta, due to infectious hepatitis has made the government sit up and take note. The coverage in the local press has also made the public and the government aware of this threat to the citizens of Calcutta. Whatever it may be, one fact that has come to the fore is that the people of this city are very susceptible to viral hepatitis. The administration and the people themselves have to share the blame for this.

State health officials say that the initial few cases were reported as early as in the first week of January from east Calcutta. Following this, a team of Calcutta Municipal Corporation officials visited the eastern part of the city and collected water samples. On testing, the water was found to be "unsatisfactory." The administration immediately declared these areas as "affected areas."

Before the health officials could disinfect the water sources in these areas, the disease broke out. According to unofficial estimates, at least 200 people within the city limits have been affected since January.

The government has accepted that the incidence of infectious hepatitis is higher this year than the previous years. According to reports from the major hospitals in the city, altogether 91 patients suffering from the disease were admitted in January, of whom 13 died. In March while 100 patients were admitted, 12 died. But these figures do not include those who were not admitted to hospitals. R.G.Kar Hospital has reported that from January to March 66 persons suffering from infectious hepatitis were admitted, of whom 21 died. Over the same period last year, the corresponding figures were 67 and 18. SSKM Hospital has reported that while 23 persons were admitted this year, eight succumbed to the disease. The figures for the same period last year were 12 admitted and two dead. The worst mortality rate has been reported from Calcutta Medical College Hospital. While 13 patients were admit-

ted in this hospital, 12 have died. The figures for the corresponding period last year were 30 admitted of whom eight died.

As per these figures, more people have died during the first three months of this year than during the corresponding period last year. While 28 people died of infectious hepatitis between January and March last year, 41 died this year during the same period. The minister of state for health, Mr Ramnarayan Goswami, responding to these figures, has said, "The situation is disturbing but nothing unnatural." Incidentally, the 41 dead this year do not include the state health secretary's son and the joint director of the handloom corporation. Earlier, of course, the corporation health officer, Dr S.K. Chowdhury, had claimed that only "15 persons have died of infectious hepatitis between January and March."

Infectious hepatitis is common among children and "young adults." The disease usually breaks out at crowded places which have poor drinking water facilities or a community bathing system. Investigations show that till now in Calcutta most of the victims belong to the 20 to 40 age group. Surprisingly, children have been spared by the disease. In 1980, 73 per cent of the victims belonged to the 5 to 34 age group. But then again, until and unless the state headquarters receive reports from all health centres, the real picture will not emerge.

Why is it that people of east Calcutta areas and officegoers of central Calcutta have been affected this time? "Infectious hepatitis is basically a water-borne disease. It may also be caused by contaminated food. The people of many areas in east Calcutta depend on ponds and tubewells for their regular supply of drinking water. These ponds may have been contaminated by the faeces of a person suffering from infectious hepatitis. All those who drink this water will get the

disease," says a health official of the School of Tropical Medicine. Even while bathing in the ponds, if a little amount of contaminated water enters the person's mouth, the virus makes its way into the body. In the case of shallow tubewells, if there is a crack in the pipe or the filter, the virus is likely to enter the water.

Another health official squarely blamed the corporation, saying that it was the civic body's responsibility to maintain the standard of public health and provide clean drinking water. A senior official of the School of Tropical Medicine also criticised the city's sewage system. "The sewer lines were laid way back when the city was being built. At many points they have sprung leaks or cracked. Wastes may be leaking out at these points and if there is a water line running parallel to the sewer line and there is a crack or leak in that too, then the virus can easily make its way into the water line. Therefore, even if the water is initially treated at the waterworks, what is consumed might be contaminated," he said.

In other cases, the overhead or underground storage tanks may not have been cleaned for ages and the resultant accumulation of dirt contaminates the water. There are about 1.5 lakh houses in the city, including highrise buildings, which have underground or overhead water tanks.

Could the present outbreak have been avoided? The state health minister feels that since infectious hepatitis is caused by contaminated water and food, the government could not have possibly prepared before hand for an outbreak. However, health officials feel that timely disinfection of drinking water sources, especially ponds and shallow tubewells, and water storage tanks can prevent the disease from breaking out on a large scale.

The administration has generally ignored sanitation, they add. For example, on inspection it has been found that most tubewells in the 69 ward of Calcutta corporation, which

includes the Topsia, Tiljala and Picnic Garden areas, are "unsatisfactory." Similarly, it has also been discovered that the overhead tanks and underground reservoirs of many buildings on Camac Street, Chowringhee Lane, Esplanade East, Theatre Road and Park Street are not well kept. They have either not been disinfected from time to time or not cleaned periodically.

Actually, the corporation is supposed to keep a watch on these tanks and reservoirs but it is pitifully understaffed for the purpose. While there are nearly 1,500 licensed hotels and restaurants and 1.5 lakh buildings with water tanks or reservoirs in the city, there are only 22 food inspectors. However, in view of the present crisis, the corporation has decided to check the tanks and the reservoirs with this staff.

For a start, tanks of government offices in Esplanade East and those of Writers' Buildings have been cleaned and the water chlorinated. The water sources in east Calcutta are also being chlorinated. Water supplied from the Palta, Tala, Auckland Square, Garden Reach and Raja Subodh Mullick Square water works is chlorinated as per World Health Organisation (WHO) stipulations. And yet 11 of the 28 water samples collected for testing last week were found "unsatisfactory."

Now that the government is in a tough spot all of a sudden, the minister for health is taking various steps to check the disease from spreading to fresh areas. A special team

comprising experts, led by the director of health services, Dr S.C. Lahiri, will be set up to conduct a survey and suggest measures to prevent a recurrence. The School of Tropical Medicine has been asked to study the pattern of the outbreak and also suggest remedial measures. Besides, if necessary, teams will be deployed to conduct on-the-spot studies. Moreover, the health secretary, Mr B. Mukherjee, Mr S.C. Lahiri, the School of Tropical Medicine director, Dr Nripen Sen, and other medical officers are coordinating relief and precautionary efforts.

Interestingly, after the 1980 outbreak also a 17-member team of experts was set up to collect data and suggest precautionary measures. It was also decided to set up an epidemiological centre at the All India Institute of Public Health and Hygiene to collect and store data from the various hospitals, dispensaries and conduct simultaneous field work. Presumably, if the current outbreak is any indication, both the plans have failed in their purpose.

Infectious hepatitis has been totally removed from developed countries. It could have been the same here also if only proper attention had been paid to sanitation and public hygiene, says an expert. He points out that we still do not have the equipment to find out if water is contaminated with infectious hepatitis virus. The nearest we can go is to detect whether the water is contaminated with faeces.

A random survey by these correspondents has shown that in many areas of the city, especially in the outskirts, people still use ponds for communal bathing, washing utensils and clothes and are generally negligent or ignorant about the ill effects of such callousness. Sheikh Abul Hossain was asked by his doctor to stay at home and rest till he is completely cured. However, he has started attending work at the food processing factory where he is employed as the manager. He says that he still feels nausea, has headaches and is weak. All these are symptoms of infectious hepatitis. This means that he is still not fully cured and is at present a carrier of the disease. Given the fact that he works for a food processing factory, it is all the more dangerous because the food is likely to be contaminated. Besides, if he uses the office toilet he will be directly passing on the virus to his colleagues.

This is but one instance of how the public contributes to the spreading of a viral disease. Other instances are eating from street hawkers during lunch hours, drinking chilled water from unauthorised vendors or eating cut fruit sold on the pavements. Although the corporation is primarily responsible for allowing these vendors and hawkers to continue their business, the patronage really comes from the public. The corporation has now decided to crack down on such vendors and hawkers and on restaurants which do not comply with its stipulations.

DEATHS FROM ENTERIC DISEASES REPORTED IN BENGAL

Calcutta THE TELEGRAPH in English 16 Apr 85 p 5

[Text]

Midnapore, April 15: Forty-four persons have died of gastroenteritis in Midnapore district over the past few days, after drinking polluted water, the chief medical officer, Mr B.C. Prodhan, has said. The entire district is suffering from a shortage of drinking water, which is specially acute in Midnapore and Kharagpur towns. Over 50 people have been hospitalised for heatstroke.

A large number of tubewells in the district have completely dried up and prolonged power cuts and low voltage has made the situation much worse, the district magistrate, Mr Sumantra Guha, said. The entire subdivision of Contai was plunged into total darkness for eight days recently, following theft of wires near Rakhageria, near Kharagpur.

Mr Guha said he had received Rs 40 lakhs to sink 430 tubewells in the district. Water tankers have been deployed in Kharagpur town to provide essential drinking water, but the situation in Midnapore town, Chandrakona Road and Contai is still acute, he added. In Jhargram, village-level and block-level teams have been raised to look after the tubewells with Unicef assistance, the district magistrate added.

Our Staff Reporter adds: Speaking on a call attention motion in the state Assembly in Calcutta today, the minister of state for health, Mr Ramnarayan Goswami, said according to the government's figures enteric diseases had claimed over 30 lives in March in Howrah, Hooghly, 24 Parganas, Bankura, Midnapore and Purulia districts. Another 537 persons have been affected

by the disease, he added.

The minister said all district health officials had been alerted and directed to build up a buffer stock of medicines to combat the disease. The main reason for its spread, he felt, was pollution, and the presence of impurities in the water.

Mr Goswami said special measures had been taken in districts where the drinking water crisis had been accentuated by the prevailing heat wave. District officials had been asked to repair all the derelict tubewells and create new water sources.

He said that for the first time, all MLAs, particularly those from rural areas, had been given medicine kits containing halogen and oral rehydration solution (ORS) to distribute among the villagers, in order to check the disease at an early stage.

CSO: 5450/0135

JPRS-TEP-85-010
14 June 1985

INDIA

BRIEFS

JAUNDICE IN SHILLONG--Silchar, April 18--Strict instructions have been issued to the Meghalaya public health engineering department to ensure adequate chlorination of drinking water in the wake of a sudden increase in the incidence of jaundice in Shillong. According to official sources, at least 10 persons died of jaundice in Shillong in recent weeks. A total of 149 cases were reported in the city since January, sources said. [Text] [Calcutta THE TELEGRAPH in English 19 Apr 85 p 4]

CSO: 5450/0137

CHOLERA CASES CONFIRMED IN KITUI

Nairobi DAILY NATION in English 27 Apr 85 p 1

[Text]

At least 65 people have gone down with cholera in Kitui District over the last two weeks.

The outbreak of the killer disease was confirmed by the local DC, Mr J. D. Maghasi, who, while addressing a Kanu recruitment meeting at Kanundu market in Kitui town, appealed to wananchi to maintain high standards of cleanliness.

The DC said the disease has been detected in Mulango, Mutomo, Kamandio, Mwingi, Mutito, and other areas. The worst affected areas were Mwingi and Kyuso divisions.

The DC ordered leaders in the district to ensure that homes in the areas had pit latrines by the end of the month. Failure to construct toilets would lead to stern action from the authorities.

The meeting was addressed by the Kitui district Kanu chairman, Mr Kitili Mwendwa, Assistant Ministers Mr John Mutinda and Mr Ezekiel Mweu, the MP for Kitui South, Mr Patrick Ivuti and the newly elected Kitui North MP, Mr Stephen Kalonzo Musyoka.

Mr Mwendwa said the "Nyayo train carrying party registered members was almost full" but added that there was still room for those who wished to register.

"We should meet the target and show the President and the Government that Kitui people are thankful for the famine relief which the district is receiving," Mr Mwendwa said.

Mr Mweu wondered why people should wait till the last minute to register as Kanu members. He appealed to wananchi in the district to plant trees.

Mr Mutinda called for unity among the Kitui politicians. This, he said, was the only way development in the district could be hastened.

Mr Ivuti appealed to church leaders to pray for Kitui leaders to remain united. He said the work of Satan was to divide people.

Mr Musyoka said the two divisions in his constituency Mwingi and Kyuso, were determined to win the Mwendwa Cup, which will be awarded to the division which registers the highest number of Kanu members.

CSO: 5400/137

JPRS-TEP-85-010
14 June 1985

KENYA

BRIEFS

KILLER MYSTERY DISEASE IDENTIFIED--A mysterious disease which claimed 25 lives in Garissa District recently has been identified as "Alygid" malaria. A report published by the officer in charge of vector-borne disease, Mr Farrell Eli Munyoki, said malaria cases had increased in the district following floods in the area. The report is the result of the action taken by the health authorities to identify and allay public fears after a mysterious disease was reported to be spreading in the district. During the investigations, 1,526 cases were identified and treated of which 702 were malaria, 385 measles and 107 diarrhoeal. A team of five experts was deployed to investigate the complaints and their reports were submitted yesterday to the Provincial Medical Officer of Health. Among the findings were that the causes of the many deaths and complaints in the district were those caused by gastroenteritis and measles epidemic which create a high children's death rate. The report urged residents of the district to try and prevent diseases by applying modern hygienic measures. It also urged the people to abandon their old traditional belief that death was inevitable. (KNA) [Text] [Nairobi DAILY NATION in English 15 Feb 85 p 3]

CSO: 5400/135

HEALTH SECTOR OBJECTIVES OF SIXTH PLAN DISCUSSED

Karachi ECONOMIC REVIEW in English Apr 85 pp 9-12

[Text]

The poor health condition in Pakistan are a product of various factors such as poverty, malnutrition, unhygienic living conditions and uneven spread of existing health facilities.

Economic development is not an end itself; it is a means to improve living conditions, i.e. quality of life. Hence the Sixth Plan does not depend on the favourable effects of economic growth alone. While addressing itself in the "Basic Frame" work it states:

"Its basic approach is to help the poor emerge from poverty" Its policies would enable them to earn or obtain the necessities of life - nutrition, housing, water and sanitation and especially education and health."

The Sixth Plan has thus laid much emphasis on health services. It has addressed the problem at length, and has made bold decisions. To find a fundamental solution to the nationwide scarcity of good health services, the allocations for capital outlay and revenue budget for health sector have been increased considerably for the Sixth Five Year Plan. The total capital outlay proposed for Sixth Plan is Rs. 13.0 billion, as against Rs. 4.58 billion spent during Fifth Plan (1978-83). It shows an increase in the share of ADP expenditure allocated to the health sector to 6.2 per cent as compared with 3.7 per cent in the Fifth Plan. The Sixth Plan has set itself the following objectives:

- a) to reduce the crude death rate from the present 12 per thousand to about 10 per thousand;
- b) to reduce the infant mortality from 100 per 1,000 live births to 60 per 1,000;

- c) to increase life expectancy from 54.55 years to a little over 60 years;
- d) to reduce the communicable diseases to a negligible level;
- e) to protect all children and the newborns against six preventable diseases of childhood on a regular basis;
- f) to eliminate third degree malnutrition among children;
- g) to provide assistance by trained-birth attendants to every mother during childbirth; and
- h) to prevent as far as possible, occurrence of disabilities and provide improved care of the disabled.

The broad strategy to achieve these objectives includes the following:

- a) emphasis on preventive care by polyimmunization against the sixth preventable diseases of childhood, diarrhoeal disease control and improved maternal care;
- b) consolidation of existing facilities in contrast to expansion and development of rural health infrastructure (with expansion envisaged only for unserved areas);
- c) each rural health facility to be manned by a qualified doctor and not by a substitute;
- d) double shifts in the outpatient departments of all leading, district and tehsil/taluka headquarters hospitals;
- e) freezing of seats in medical colleges and stress on quality rather than quantity;
- f) rehabilitation of disabilities;
- g) Government patronage of traditional medicine;
- h) community involvement through local bodies in primary health care;
- i) proper management training for health workers;
- j) introduction of user charges; and
- k) rapid expansion of the private health sector.

The physical infrastructure targets identified by the Government consist of the following:

- a) Conversion of 2,600 existing facilities into Basic Health Units (BHU) with doctors' residence;
- b) construction of 2,600 new BHUs with attached residence for doctors and staff;
- c) construction of 355 new Rural Health Centres (RHC);
- d) construction of 1,715 doctors' residence at the existing BHUs;
- e) provision of 3,500 teaching beds in existing

medical colleges and another 3,500 in district and tehsil hospitals, and 1,220 beds in tehsil hospital for referral care; and

- f) hostel accommodation for house surgeons, physicians and trainee registrars.

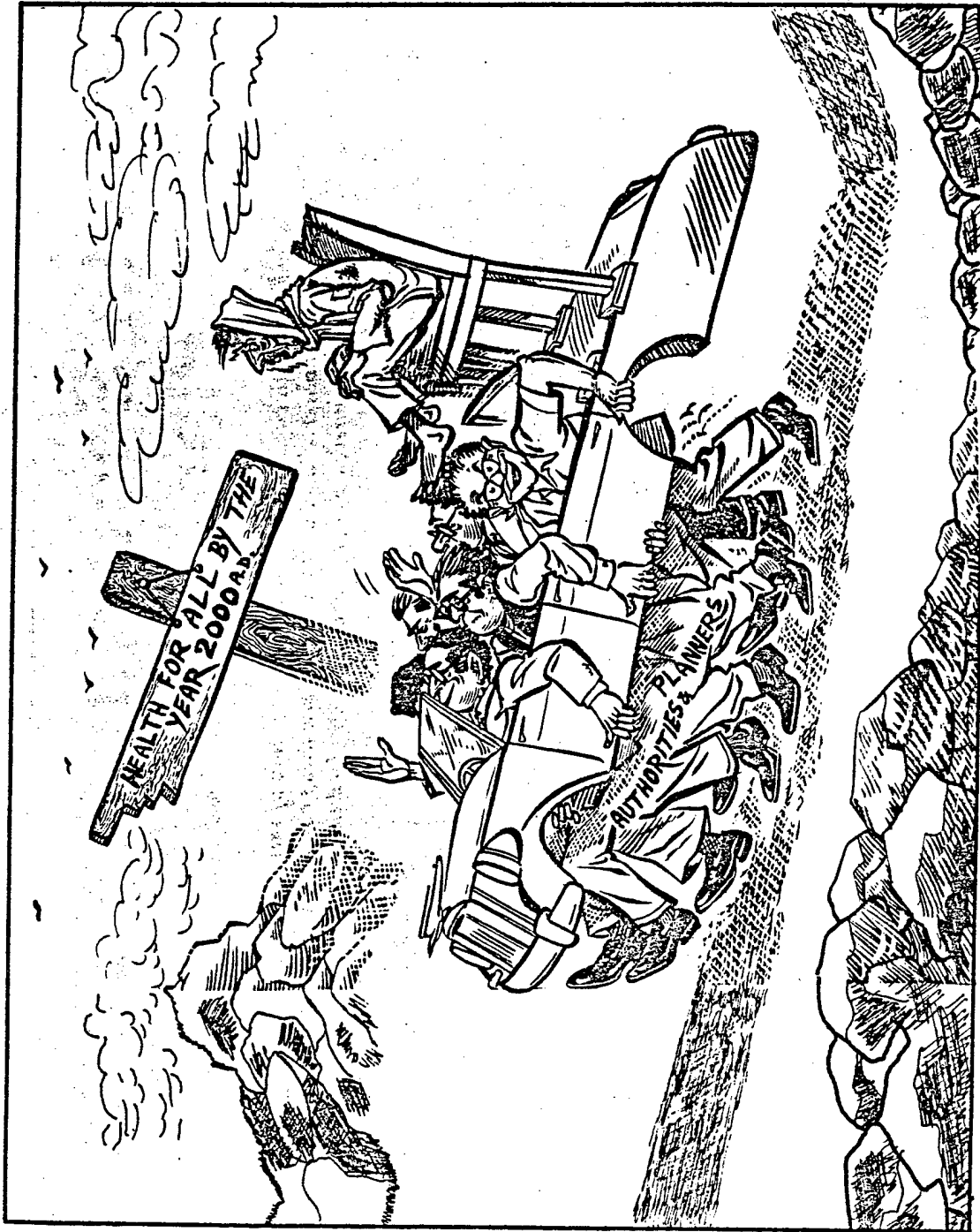
The above mentioned inputs aim at improving the quality of life by safeguarding off-springs, their mothers and reducing misery of life by:

- a) protecting 24 million children against the six major child killers;
- b) protecting 8 million children against complications and mortality of diarrhoeal diseases through rehydration salts;
- c) protecting 1.25 million children suffering from third degree malnutrition;
- d) providing help during pregnancy and childbirth to all mothers through 45,000 trained birth attendants (TBA), backed by lady health visitors (LHVs), and female doctors;
- e) rehabilitation of 100,000 disabled people, and prevention of occurrence of disabilities; and
- f) availability of primary health care to all and referral care where needed.

In terms of physical facilities as health manpower the Sixth Plan envisages to increase: hospital beds by 11,770 to 63,170 by end June 1988; RHCs by 355 to 729; BHU by 2,600 to 4,315; 2,620 Sub-centres, Dispensaries and Maternity and Child Health Welfare Centres (MCH) to be graded into BHUs.

As far as manpower development is concerned the Sixth Plan has set itself the target to increase 21,000 doctors during the plan period to 36,000 doctors by the end of the plan; 600 dentists to 1,700; 5,000 nurses to 10,000; 38,000 paramedics to 75,000; and 30,000 Dias/CHWs to 45,000.

The progress of medical science in its curative as well as preventive aspect has brought high standards of health within human reach. But it is agonizing to find that most of the people in the Third World do not enjoy basic health facilities. And Pakistan is no exception to it. The poor health condition in Pakistan are a product of various factors such as poverty, malnutrition, unhygienic living conditions and uneven spread of existing health facilities. Notwithstanding the significant growth in the number of hospitals and dispensaries during the last two decades, the urban concentration



and doctor-oriented delivery system has restricted their benefits. This unbalanced development partly owes to wage structure, training facilities, prestige order in the society and socio-cultural values. The average staffing pattern hardly reflects the availability of doctors to rural population, as the doctors hesitate to work in rural areas because of inadequate living conditions and meagre prospects for private practice.

The health related indicators of Pakistan compares unfavourably with the middle income economies. For instance life expectancy at birth in Pakistan at present is 55 years whereas it is 61 years in comparable countries. Infant mortality rate per 1,000 live births is 100 in Pakistan against 60 in middle income countries. And crude death rate is 12 per 1,000 in Pakistan (9 in other countries).

Further more there is at present one doctor for 4,600 persons, one dentist for 83,000 persons, one nurse for 6.4 hospital beds, one paramedic for 2,486 persons, one primary health care facility for 12,943 persons and one hospital bed for 1,790 persons.

If the Plan is implemented faithfully, it will increase the above facilities to quite an extent. It is estimated that by the end of the Plan one doctor will be available for 2,940 persons, one dentist for 62,350 people, one nurse for 5 hospital beds, one paramedics for 1,413 persons, one hospital bed for 1,678 persons and one primary health care facility for 9,820 people.

The study of the latest publication of the Planning Commission, Government of Pakistan entitled "Sixth Plan Performance During First two Years 1983-85" reveals that net allocations for the Sixth Plan for Health has been revised down to Rs. 11.37 billion of which only Rs. 3.05 has been spent during the first two years - showing 27 per cent implementation of the revised target. Similarly development of BHUs and RHCs during the Sixth Plan has been curtailed drastically to 983 and 149 respectively. However, 726 BHUs and 116 RHC. were established during the first two years - showing 74 per cent and 78 per cent implementation respectively of the revised target.

Despite the cut in development expenditure no reduction in rehabilitation of disable; immunisation of children; and development in manpower such as TBA's training, Doctors, Nurses and hospital beds has been proposed in the new document.

**Number of Hospitals/Dispensaries, Maternity & Child Welfare Centres,
Beds and Medical Personnel**

Year	Hospitals	Dispensaries	Maternity & Child Welfare Centres	Beds in hospitals & Dispensaries	Registered Doctors (Prog.Total)	Registered Dentists (Prog. Total)	Registered Nurses (Prog. Total)	Registered lady health Visitors (Prog. Total)
1972	496	2,137	675	35,337	15,789	503	5,504	1,458
1973	521	2,566	677	35,655	16,485	539	5,751	1,618
1974	517	2,836	690	35,866	17,194	597	6,010	1,627
1975	518	2,906	696	37,776	17,887	638	6,144	1,636
1976	525	3,063	715	39,129	18,757	694	6,685	1,688
1977	528	3,220	726	40,518	19,863	720	7,186	1,738
1978	536	3,306	748	42,469	20,931	767	7,768	1,823
1979	550	3,367	772	44,367	21,938	329	8,382	1,921
1980	602	3,466	812	47,412	23,594	911	9,098	2,009
1981	600	3,478	823	48,441	26,668	999	9,872	2,171
1982	613	3,459	817	50,335	29,931	1,103	10,554	2,368
1983	626	3,351	794	52,161	33,584	1,203	11,070	2,562

(Prog. Total) = Progressive Total

Source: Pakistan Basic Facts, 1983-84 -

It is estimated that 13.3 thousand disabled has been rehabilitated during the first two years of the Plan (13% implementation of the Sixth Plan); 15 million children were immunized (63% implementation); 18 thousand TBAs were trained (30% implementation); 7550 doctors were brought into the field (36% implementation); 1,700 nurses were trained (34% implementation); and 2,380 hospital beds were developed (20% implementation of the Sixth Plan).

In 1983-84, the Government's current expenditure on health was Rs. 1.5 billion while investment on development amounted to Rs. 1.6 billion. But for 1984-85, the ADP's shows a decline of 12.5 per cent in the health development budget which is Rs. 1.4 billion. Revenue expenditure, however, registered an increase of 23 per cent during the current year to Rs. 1.9 billion.

At this rate the targets - atleast the development one - are unlikely to be met. The target for recurring expenditure might be achieved because it is to be met partly by the user charges which should fetch Rs. 205 billion in five years.

The Government has announced its intention to increase cost recovery in the health services. Fees for outpatient consultations in urban areas will be raised to Rs. 5 per treatment by the end of the Sixth Plan period, and in rural areas the fees will be half as much as in the urban areas. For inpatients there will be Rs. 10 admission charge and a further charge per inpatient day (half of which will go towards the cost of the diets). There will also be charges for X-ray and laboratory services. However, indigents will have their fees paid through Zakat funds, while no fees will be charged for preventive services.

It is estimated that the revenue from these measures will amount to about Rs. 1,250 million by the last year of the Sixth Plan period. If so, then the cost-recovery would be equivalent to over one-fourth of operating and maintenance expenditures. From the present figure of 2 per cent this would clearly be a major increase. And this increase will come from the poor who will feel all the pain while paying it.

Muhammad Naveemuddin

OFFICIAL TALKS ABOUT HEALTH FACILITIES FOR INDUSTRIAL WORKERS

Karachi ECONOMIC REVIEW in English Apr 85 pp 17-20

[Interview with Dr Abdullah K. Mangi]

[Text]

Dr. Abdullah K. Mangi (49) is the Medical Adviser, Sind Employees Social Security Institution. After completing MBBS from Karachi University in 1962, he attended a course in Basic Medical Science at Royal College of Surgeons, England, apart from enriching knowledge in Occupational Medicine and Preventive Cardiology within country. Dr. Mangi has a vast and varied experience at his credit in fields like General Thoracic and Plastic Surgery. He also worked in different Hospitals of United Kingdom for a considerable period where he was entrusted different responsibilities relating to General Medicines, Accident, Emergency, Orthopaedic Surgery, Haemetology and Family Medicines. He is a member of different professional Associations. Dr. Mangi is an author and a co-author and is widely travelled. Economic Review interviewed Dr. Mangi regarding medical facilities for industrial workers. Following are the excerpts.

Q. Dr. Mangi, please, can you give us a brief background of Social Security Scheme in Pakistan in general and particularly in Sind ?

A. Social Security Scheme was introduced in former West Pakistan through an Ordinance in 1965. But on dissolution of one units in 1970 the institution was split into two independent bodies through which the scheme was introduced as PESSI in Punjab and SESSI in Sind. This scheme is meant for the workers drawing wages upto Rs. 1,000/- in the notified establishments employing 10 or more workers. To cope with the monetary re-

quirements of the scheme, the employer pays 7 per cent of the wages of the worker as contribution to the institution for their entitlement of medical care and other allied benefits.

Q. What medical facilities are extended to workers and their dependents by SESSI ?

A. Outdoor and indoor medical facilities are provided to secured workers which include specialists services along with other arrangements like X-ray and

pathological tests. OPD treatment is extended to the dependents members of the workers at dispensary level but hospitalization facilities and specialists arrangements are there in case of surgery and maternity. The Institution has also established special children units with nurseries.

Q. What method have been adopted by SESSI for providing medical care facilities?

A. SESSI has established two big Hospitals, one at SITE area with 350 beds and another one at Landhi having 150 beds and one maternity centre with 16 beds. It is also running a Poly Clinic at Hyderabad and Kotri with 30 and 15 beds respectively. Besides this SESSI is operating its own dispensaries in the different cities and rural areas of Sind. At present it has 28 dispensaries in Karachi, 9 at Hyderabad, 4 at Kotri and 7 in the interior of Sind. Further it has nominated 13 doctors with clinical facilities for OPD treatment of the workers. Further-more SESSI has arranged Hospitalization and maternity facilities on contract basis in the interior of Sind.

Q. What are the specialized facilities at your hospitals?

A. The two hospitals operating at Karachi are fully equipped with latest medical facilities for kidney patients. For this purpose two Dialysis units are working alongwith intensive care units. Blood Gas Analyser is available at Landhi Hospital. Physiotherapy and Rehabilitation centres are also functioning in both the hospitals at Karachi.

Q. Whether the Institution provides only curative treatment or it has taken measures for preventive health also?

A. Since 1979, the institution is taking active part in preventive health measures and has carried out expanded Immunization programmes against 6 deadly diseases of children of the secured workers and general public in collaboration of UNICEF who has also provided two vehicles for mobile strategy of E.P.I. in September, 1984.

Q. In what proportion the budget of the Institution is spent on medical care facilities?

A. Budget allocation of the Institution

for the year 1984-85 amounts to Rs. 81,840,500/- out of which Rs. 55,092,900/- (67.32%) is meant for the recurring expenditure of medical care which also includes an allocation of Rs. 12,000,000/- for purchase of medicines. Rs. 1,082,300/- which is 1.32% of total budget has been allocated for the fixed capital expenditure towards medical care. As a result the total medical expenditure

SESSI has established two big Hospitals, one at SITE area with 350 beds and another one at Landhi 150 beds and one maternity centre with 16 beds. These hospitals are also equipped with latest medical facilities for kidney patients.

comes to 68.64% of the total allocated budget.

Q. You are spending a very heavy amount of Rs. 12 million approx on purchase of medicines, would you please throw some light on procurement of these?

A. Medicines are purchased on the recommendations made by a broad-based purchase committee headed by Medical Advisor and 5 members comprising of 2 Governing Body member of Sind Employees Social Security Institution, 2 specialists of the hospitals and one SMO by inviting tenders. But the life saving drugs are purchased irrespective of the cost factor.

Q. What are the main statistics relating to doctors patient ratio, bed patient ratio, referrals to specialists, patients treated in OPD etc.?

A. The present Doctor worker Ratio is 1: 548 whereas the Bed worker ratio is 1: 248. The number of workers referred to specialists stood as 38,000 and the attendance of workers of OPD remained 164,000.

Q. It appears that the specialised facilities for cardiac & Neurosurgery cases are not available in your hospitals. How such patients are provided the required treatment ?

A secured worker when becomes a victim of health indisposition is allowed medical leave and gets sickness benefits @ 75 per cent of his wages upto 121 days. In case of chronic diseases like Cancer and Tuberculosis 100 per cent sickness benefits are allowed upto 180 days.

ties for cardiac & Neurosurgery cases are not available in your hospitals. How such patients are provided the required treatment ?

A. The patients of various ailments requiring surgery are referred to various hospitals like NICVD, Civil and Jinnah Hospitals and other leading surgeons as private cases and the expenses involved are borne by the Institution.

Q. Since this is a Social Security Scheme providing medical facilities to the secured workers and their dependents as one aspect for restoring health but what about the livelihood for those who are suffering from chronic illnesses like Cancer, Tuberculosis or a severe injury sustained during employment and in case when a lady secured worker who is pregnant ?

A. A secured worker when becomes a victim of health indisposition is allowed medical leave and gets sickness benefits @ 75 per cent of his wages upto 121 days. In case of chronic diseases like Cancer and Tuberculosis 100 per cent sickness benefits are allowed upto 180 days. If a secured worker is injured during work, 100 per cent wages are paid by SESSI for a maximum period of 180 days. Secured lady workers get maternity leave for 90 days with 100 per cent cash benefits.

Q. From our talk it appears that SESSI is running a health insurance scheme, what do you think about it ?

A. Yes, it is so. As you would appreciate 7% contribution is collected by the Institution on account of each worker, this is paid entirely by the employer and nothing is deducted from the wage of the

secured person. Such persons on whose behalf 7% is paid to the Institution, in a way become insuree. As you would realize the basic concept in any insurance scheme is that all the people do not fall ill at the same time, therefore, the benefit is extended in very generous manner to a small minority.

Q. Is there any other such Organized Welfare Scheme in the Province ?

A. SESSI is the only scheme which is run on the Health Insurance pattern. The cost of medical treatment can be a very worrying factor for an average wage earner specially in the circumstances of his ailment, when the earning capacity is also lost. Social Security in such circumstances comes as a blessing where not only the treatment is guaranteed, further the insuree does not suffer any financial hardship due to incapacity because the Social Security pays the sickness benefit during his illness.

Q. What are your contributions as Medical Adviser ?

A. Since my joining duties as Medical Advisor in 1976, a phasewise expansion programme was undertaken and 50 beds were added to Landhi Hospital and 100 to SITE Hospital, alongwith Paediatric wards. Preventive Health Schemes were introduced for Immunization of children apart from O.R.S. treatment for Diarrhoeal Diseases. Ten new dispensaries were opened and obtained complete Cold Chain System and two Toyota Land Cruise Diesel Vehicles worth Rs. 7 lac from UNICEF for SESSI. Standby Diesel Electric Generators were also installed in both SESSI Hospitals, and laid foundation of a Nursing School at K.V.S.S. SITE Hospital.

Q. What are your future planning for improvements in the medical care facilities ?

A. To improve the medical facilities I am trying to add Hand Surgery unit, Mass maintenance Radiography and intensive care ambulance service unit in the present set up of medical care.

Social Security Scheme in Sind Basic Facts at a Glance – 1984-85

<i>Number of Secured Workers</i>	157,000
<i>Number of Dependants of Secured Workers</i>	471,000
<i>Number of Workers and Dependants</i>	628,000
<i>Number of Industrial and Commercial Establishments</i>	6,250
<i>Local Directorates</i>	9
<i>Expected Income from Contribution and other sources</i>	Rs. 81.84m
<i>Per-capita Income</i>	Rs. 521.27
<i>Expected Expenditure (Total)</i>	Rs. 80.67
<i>Per-Capita Expenditure</i>	Rs. 513.82
<i>Expenditure on provision of medical care including capital expenditure</i>	Rs. 55.09m
<i>Per-capita medical care expenditure</i>	Rs. 350.89
<i>Expenditure on provision of Cash Benefits</i>	Rs. 7.94m
<i>Expenditure on Administration including capital expenditure</i>	Rs. 14.00m
<i>Expenditure on Development</i>	Rs. 2.50m
<i>Medical Circle</i>	8
<i>Dispensaries</i>	48
<i>Clinics of Approved Retainer Doctors</i>	13
<i>Hospitals/Poly Clinic</i>	4
<i>Maternity Home</i>	1
<i>Approved Private Maternity Homes/Hospitals</i>	11
<i>Number of Doctors</i>	286
<i>Number of Hospital Beds</i>	559
<i>Doctor-worker ratio</i>	1 : 548
<i>Bed-worker ratio</i>	1 : 280
<i>Expected attendance of Patients in dispensaries</i>	1,640,000
<i>Number of Patients anticipated to be hospitalised</i>	43,000
<i>Number of Patients anticipated to be referred to specialists</i>	38,000

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REPORT ON NATION'S STATE OF HEALTH

Karachi ECONOMIC REVIEW in English Apr 85 pp 21-22

[Article by Dr Badar Siddiqui]

[Text]

President – Elect, Pakistan Medical Association (Sind) Dr. Badar Siddiqui (49)) is the Medical Superintendent, Rafiqi Shaheed Hospital KMC, Karachi. He is basically a Consultant and Surgeon. Dr. Badar is a medical graduate from Dow Medical College Karachi who did FRCS from England in 1964. He also held the portfolio of President, Pakistan Medical Association, Karachi from 1979-1983. He visited America, Europe and Far Eastern countries.

It is a matter of record that all the new nations in South East Asia are now pledged to the uplift of socio-economic conditions through planned and co-ordinated effort of the government. Few, however, have come far in this direction, and Pakistan is no exception to it. The obstruction to rapid development are formidable and their significance must be faced and cannot and must not be minimized.

In the past, development planners have attached little importance to health services. They have tended to judge the contribution of health service and a healthy nation mainly by the impact on production and overall development. The contribution of health service can make towards development should not only be judged by their short-term effect on output but it should be seen on the long term impact on the quality of life of the poor as a whole.

The aim of the health policy should be to secure a fundamental change in the health status and to help break the circle of poverty and liberate the population to secure change that they have chosen. It

includes provision of relevant health education for adults as well as for children. The agriculture and other policies that lead to adequate nutrition and adequate supply of clean water, effective sanitation and improved housing are basic pre-requisites.

The decisions on what type of development is desirable and how quickly it can be allowed to proceed are inevitably political decisions. Similarly political choices are needed to determine the level and type of taxation and distribution of public expenditure.

As far as Pakistan is concerned, it is laid down in the constitution that the state has to make provisions for the basic health needs of the population. It is further reinforced by the Alama Ata WHO declaration to which Pakistan is a signatory which states "The attainment by the citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life". (Resolution : World

Assembly: 30.43 1977). It is clear that the fundamental issue of political commitment to provide basic health facilities to the population of the country has already been firmly made. However, implementation of a commitment does not automatically follow a commitment. The essential ingredient for implementation is the necessary political will and unless the political will is operative this commitment will remain on paper.

If we are to see the commitment of health for all by the year 2000 then after an objective assessment of the existing situation a masterplan for providing HFA by the year 2000 has to be realistically drawn.

The implementation of the plan with the necessary infrastructure backed by adequate finances spelled out. Let us take a searching look at the state of health in Pakistan.

State of Health in Pakistan

It is always difficult to objectively measure abstract things, but as far as state of health in any community is concerned there are certain internationally recognised criteria which can form the basis of the assessment of the state of health of a nation. These criteria may be seen in three areas:

1. Population.
 - a) Infant mortality.
 - b) Paternal mortality.
 - c) General morbidity.
 - d) Life expectancy at birth.
2. Availability of Health Facilities and Medical Manpower: This may be seen as the ratio of various health facilities and medical manpower to the population.

3. Financial allocation: The quantum of national resources made available for development and maintenance of health facilities and health related areas. The present position of these indicators in Pakistan are seen in the following charts.

- i) Crude death rate : 12 per 1000 persons.
- ii) Infant mortality : 100 per 1000 live births.
- iii) Child Mortality : 15 per 100 children.
- iv) Life expectancy

Males	: 55 years
Females	: 54 years.

Manpower and Health Facilities Ratio to Population

Doctors 1	4600 persons
Dentist 1	83,000 persons
One Primary Health Care Facility 1	12943 persons
Hospital bed 1	1795

Source: Sixth Five Year Plan.

Health Allocations

The capital expenditure on health care system has ranged between 3 – 4 per cent of the total development outlays and around 2 per cent of the revenue budget averages at 0.6 of the GNP. On a comparative basis, Pakistan has been spending only one-fifth as much as other low-income developing countries on national health care.

Looking at the state of these indicators it will be clear to anyone that the state of health in Pakistan is in deplorable state. Having said that, it is only fair to judge the situation in the overall context. In defence of the policy makers and planners the assessment of the state of health

in Pakistan has to be made in comparison to the other countries of the world. Among the countries of the world the comparison can only be considered relevant with those countries who are at the same stage of development as ours.

Fifth Five Year Review

The upto-date assessment of our development effort can be made by the review of the last five year plan. The objectives of the 5th Five Year Plan which aimed: (i) To provide modern health coverage within 2-4 miles for the entire population. (ii) To reduce the crude death rate from 14 per thousand to about 10.2 per thousand. (iii) To reduce infant mortality from 105 per thousand to 79 per thousand live birth. (iv) To increase the life expectancy from 54 years for men to 60 years and from 53 to 59 years for women was to be achieved at an estimated cost of Rs. 6.6 billion at 1978 prices. The expenditure incurred during the 5th plan at current prices was Rs. 4,584 million. Discounting for inflation, the amount allocated for the health sector adds upto Rs. 3,615 million at 1978 prices or 55 per cent of the envisaged allocation during the plan period. Taking into account the budgetary cuts, the allocation has not been more than 50 per cent of the estimated cost of the plan requirement.

A total of 206 RHCs and 1617 BHUs were built, out of a total of 625 RHCs and 4596 BHUs planned during 1978-1983. The achievement could have been much better if the budgetary allocations would have been adequate. The table below gives the achievement during 1978-1983:—

The difficulty faced by the public sector health service is due to insufficient funds to meet the recurring expenditure. In many cases the infrastructure is available but it cannot be utilized in full because of the shortage of funds for personnel, medicines and maintenance. This is a story which repeats itself again and again. If one looks at the factual situation can easily reach the conclusion that we have the resources within our power to improve the health of our nation, but over the years the health sector was not given priority and just allocation.

If the situation is not considered in its right perspective the state of health can not improve and it is likely that it may further deteriorate due to inevitable pressure of increased population and inflation. Specific, powerful and co-ordinated efforts through fundamental political decisions can improve the present state of health.

Category	Targets	Achievements	Percentage achievement
Physical Facilities:			
i) Basic Health Units/Dispensaries MCH Centres.	4,596	1617	35.2
ii) Rural Health Centres	625	206	33.0
iii) Hospital Beds	25,820	5308	20.0
Health Manpower			
i) Doctors/Dental Surgeons	13,512	10,203	75.5
ii) Nurses	4,780	4,246	88.88
iii) Paramedics/Auxiliaries	24,886	13,576	54.5
iv) Community Health Workers/Dais	50,371	9,000	17.9

CHANGES IN ETIOLOGIC TYPES OF HEART DISEASE IN SHANGHAI

Beijing CHINESE MEDICAL JOURNAL in English No 3, Mar 85 pp 151-156

[Text]

A series of 15,696 cardiac patients admitted to our two hospitals were studied for changes in etiologic types of heart disease in the past 32 years. They were divided into 3 groups representing roughly cases seen in the 50's, 60's and 70's. Heart disease accounted for 9.8%, 15.69% and 20.9% of all admissions respectively.

The frequency of common etiologic types was in the following order: In the 50's, rheumatic heart disease (RHD), hypertensive heart disease (HHD), syphilitic cardiovascular disease, chronic pulmonary heart disease (PHD), coronary heart disease (CHD), congenital cardiovascular disease (CCD), thyroid heart disease and pericarditis; in the 60's, RHD, CHD, CCD, PHD, HHD, syphilitic cardiovascular disease, cardiac arrhythmia of undetermined cause, pericarditis and myocarditis; and in the 70's, CHD, RHD, CCD, PHD, myocarditis, cardiac arrhythmia of undetermined cause, HHD, idiopathic cardiomyopathy and pericarditis.

RHD ranked first among the etiologic types in all the 3 decades. However, the percentage declined tremendously in the 70's and its leading position was substituted by CHD in the past 4 years. PHD was common and had a steady percentage throughout the 3 decades. Prevalence of hypertension was increasing in the past 2 decades whereas HHD disease became less common in the 70's. Possible causes of the foregoing changes are discussed.

* Zhongshan Hospital, Shanghai First Medical College and Shanghai Institute of Cardiovascular Diseases, Shanghai.

** Huashan Hospital, Shanghai First Medical College, Shanghai.

In 1959 we reported the etiologic types of a group of 3,778 adult cardiac cases admitted to our two teaching hospitals during the 10 year period from 1948 to 1957.¹ It was found that the relative frequency of various etiologic types of heart disease in this area is somewhat different from those of other parts of China. This difference was even more marked when compared with those of Western countries. We predicted in the previous report that the relative frequency of etiologic types of heart disease in Shanghai would change with time.

It is now time, we believe, to see what has actually taken place. All cardiac cases seen in our hospitals in the past 3 decades were studied and compared for the relative frequency of various etiologic types. The results are reported in this paper.

SUBJECTS AND METHOD

All adult cardiac patients admitted to Zhongshan and Huashan Hospitals of Shanghai First Medical College from 1948 to 1979 are included in this analysis. They were divided into 3 groups according to the date of admission. The first group consisted of 3,778 cases seen from 1948 to 1957, the second group included 6,074 cases seen from 1958 to 1968 and the third group of 5,844 cases was seen from 1969 to 1979. These were considered to roughly represent the heart diseases seen in the 50's, 60's and 70's.

RESULTS

Frequency of heart disease. During the past 32 years, altogether 104,825 cases were admitted to our medical wards, among which 15,696 or 14.97% were heart cases. Medical admissions in the 50's, 60's, and 70's were 38,173, 38,691 and 27,961, whereas 3,778, 6,074 and 5,844 or 9.89, 15.69 and 20.90% were cases of heart diseases. Obviously, the frequency of heart disease among medical admissions increased steadily and significantly during the past 3 decades (Fig 1).

Relative frequency of etiologic types of heart disease. Table 1 shows the relative frequency of different etiologic type of heart disease.

Rheumatic heart disease (RHD) was the most common etiology type of heart disease throughout the 3 decades. Its frequency however, declined significantly from 50.30% in the 50's to 29.65% in the 70's. The leading position of RHD is now challenged by coronary heart disease (CHD), which replaced the former as the most frequent type of heart disease during the last 4 years of the 70's. Chronic valvular disease accounted for a little over 97% of all RHD cases seen in each of the 3 decades. Among them 18.7, 6.1 and 6.1% showed evidence of rheumatic activity. Acute rheumatic myocarditis was rarely encountered, accounting for only 2.3-2.6%.

Hypertensive heart disease (HHD) was the second most prevalent heart disease in the 50's. It became less frequent, dropping to fifth and seventh place during the following 2 decades.

Syphilitic cardiovascular disease, being one of the common forms of heart disease in China before 1949, still occupied third place in the 50s. It fell to sixth place in the 60's and became a rare disease in the 70's. It consisted chiefly of syphilitic aortic incompetence with only a small number of cases with aortic aneurysm.

Chronic pulmonary heart disease (PHD), an important heart disease in China, occupied the fourth place among etiologic types throughout the study with (7.10-10.14%). The primary pulmonary conditions associated with this disease

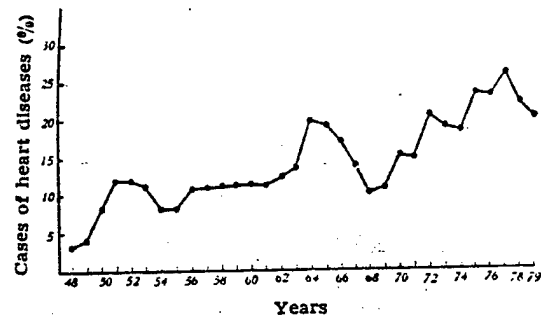


Fig 1. Annual frequency of heart disease among medical admissions.

were chiefly chronic bronchitis and bronchial asthma complicated by obstructive emphysema. Acute PHD caused by massive pulmonary embolism was not seen in this series.

CHD was thought to be rare in China before liberation. It was still not too common in the 50's, ranking then only the fifth. However, it rose to the second during the following 2 decades. The number of CHD cases exceeded that of RHD during the past four years and the disease became the most common type of heart disease. Myocardial infarction was the most frequently seen type of CHD in the 50's, whereas myocardial sclerosis manifesting as cardiac enlargement, cardiac arrhythmia and/or cardiac failure was the most common type seen in the 60's and 70's. Angina pectoris was uncommon in patients hospitalized throughout the study.

Only 83 cases of congenital cardiovascular disease were seen during the 50's. This figure was increased to 709 in the 60's and to 994 in the 70's, thus the frequency of this type of heart disease rose from the sixth place to the third. Atrial septal defect, ventricular septal defect, patent ductus arteriosus, tetralogy of Fallot and isolated pulmonary stenosis were common.

Thyroid heart disease, mainly thyrotoxic heart disease with only a few cases of myxedema, was the seventh type in the 50's, but became uncommon in the later 2 decades. Pericarditis occupied either the eighth or ninth place among all

Table 1. Frequency of etiologic types of heart disease in different decades

Heart disease types	50's		60's		70's	
	No.	%	No.	%	No.	%
Rheumatic	1,901	50.30	2,663	43.70	1,733	29.65
Coronary	256	6.71	954	15.71	1,521	26.03
Congenital	83	2.10	709	11.67	994	17.01
Chronic pulmonary	270	7.10	616	10.14	437	7.50
Myocarditis	25	0.66	80	1.32	391	6.69
Cardiac arrhythmia (of undetermined cause)	24	0.63	143	2.35	208	3.56
Hypertensive	670	17.70	422	6.75	204	3.49
Cardiomyopathy (Idiopathic)	2	0.05	10	0.16	143	2.45
Pericarditis	66	1.71	132	2.17	90	1.54
Secondary to renal diseases	32	0.84	53	0.87	47	0.80
Syphilitic	323	8.50	184	3.13	40	0.68
Thyroid	77	2.01	48	0.79	14	0.24
Anemic	21	0.53	48	0.79	10	0.17
Infective endocarditis without organic heart diseases	1	0.02	5	0.08	5	0.09
Traumatic	6	0.15	1	0.02	4	0.07
Peripartum	14	0.36	4	0.07	3	0.05
Secondary to toxemia of pregnancy	5	0.13	1	0.02	0	0
Beriberi	2	0.05	1	0.02	0	0
Total	3,778		6,074		5,844	
Infective endocarditis (with organic heart disease)	52	1.38	85	1.40	65	1.11

etiologic types throughout the study. Acute pericarditis was seen more often in the 50's and 60's and was tuberculous, purulent, uremic or idiopathic. In the 70's, more cases of constrictive pericarditis were seen. A small number of heart disease cases secondary to renal diseases, mainly chronic or acute glomerulonephritis, were seen throughout the series.

Myocarditis, cardiac arrhythmia of undetermined cause (without apparent organic heart disease) and idiopathic cardiomyopathy were all uncommon in the 50's. They increased to occupy the fifth, sixth and eighth place during the 70's. Most myocarditis cases were considered to be due to viral infection. Cardiac arrhythmia of undetermined cause consisted mainly of paroxysmal supraventricular tachycardia in the 50's, while in the last 2 decades paroxysmal atrial fibrillation and different kinds of extrasystoles

were more frequently seen. Idiopathic cardiomyopathy was most commonly congestive (dilatative).

Anemic heart disease, beriberi heart disease and peripartum heart disease, which were rather prevalent in old China, became much less common and even disappeared after liberation.

The frequency of infective endocarditis developing in patients with or without evident underlying heart disease did not vary much throughout the study.

Sex incidence. The male to female ratio of the series in the 50's and 60's was quite similar (1.03:1 and 1.08:1), whereas more male patients were seen and the ratio changed to 1.44:1 during the 70's. The following conditions may have contributed to this change: a. Contrary to expected (as was true in the 50's and 60's), more males had RHD. b. Many more CHD male

patients were seen than in the 50's and 60's. c. Among the chronic PHD, myocarditis, cardiac arrhythmia of undetermined cause and idiopathic cardiomyopathy cases, males predominated.

Age distribution. Patients in the 21-30 age group and 31-40 age group formed the main portion of RHD cases throughout the series (76.2, 72.6 and 60.7%). However, the percentage of cases in the 41-50 and 51-60 age groups increased from 21.0 in the 50's to 35.8 in the 70's, indicating prolongation of RHD patient life span.

In CHD, chronic PHD and HHD, most patients were over 40 years of age (98.44, 84.81 and 82.99% in the 50's; 97.80, 89.82 and 96.45% in the 60's; and 99.21, 94.28 and 98.53% in the 70's, and many were over 60 (44.14, 25.56 and 28.66% in the 50's; 58.70, 36.69 and 55.92% in the 60's and 54.64, 51.26 and 64.70% in the 70's). On the contrary, more than 90% of congenital cardiovascular cases were under 40. Altogether only 40 cases of syphilitic cardiovascular disease were seen in the 70's, they were all over 51 years of age.

Among the diseases which became quite common during the 70's, cardiac arrhythmia of undetermined cause occurred mainly in the age groups of 31-40 and 41-50, while myocarditis and idiopathic cardiomyopathy were mainly seen in the 21 to 50 groups.

Incidence of heart failure and hospital mortality. Heart failure was noted in 68.1, 36.4 and 27.1% of the cases in the 3 decades. The incidence of heart failure declined significantly during the 60's and 70's ($p < 0.001$). The death rate of patients hospitalized was 17.91% in the 50's. This dropped to 11.51% in the 60's and to 14.07% in the 70's ($p < 0.001$). Chronic PHD heart disease was the disease in this series with the highest incidence of heart failure as well as hospital mortality.

DISCUSSION

Three sources of data are available for the study of frequency of etiologic types of heart disease, prospective epidemiologic studies, mortality statistics and hospital records. The last

source has been utilized for many years. Its major limitation is that the data are based upon selected groups of patients who are thought to require hospitalization and who agree to be admitted. These patients therefore, cannot accurately reflect the prevalence or incidence of the types of heart disease in the population. However, the socialist system of our country provides labor insurance, free medical care for government workers and a cooperative medical care system for others. All cardiac patients, therefore, can be hospitalized whenever necessary. We believe that the relative frequency of etiologic types of heart disease obtained from our large series from 2 general hospitals provides a roughly correct estimate of the prevalence of types.

National increase in number of cardiac cases during the past 32 years. The data show that the percentage of cardiac cases among hospital admissions in Shanghai and other Chinese cities has been increasing. This correlates well with the mortality statistics. The death rate in Shanghai for 1978 was 624 per 100,000 population. Common causes of death were: malignant tumors 154, cerebral vascular disease 111, heart disease 103, respiratory diseases 64, etc. Heart disease was third, it ranked only sixth and tenth in the 60's and 50's.

Changes in Shanghai's etiologic types of heart disease during the past 32 years. According to the data, the most significant changes were a decrease in the number of RHD cases and an increase in CHD during the past 32 years. Other important changes were a marked decrease in the number of hypertensive and syphilitic heart cases as well as an increase in the number of congenital cardiovascular cases. An increase has also been noted in myocarditis, cardiac arrhythmias of undetermined cause and idiopathic cardiomyopathy, which were uncommon diseases during the 50's.

Recent epidemiologic studies of heart disease in developed countries show that RHD has become less common.² It is believed that improvement in living conditions and use of antibiotics to control streptococcal infection have cut rheumatic fever occurrence. Although RHD was the leading type of heart disease in the 50's and 60's in Shanghai and remained the most common type in

the 70's, its percentage dropped significantly in the latter decade. Furthermore, the patients admitted were older than before and were seldom complicated by active rheumatism. This indicates that newly developed RHD among young patients is decreasing, although the change is not as marked as in the developed countries. In a survey of a group of 88,246 young adults and children from 4 to 30 years of age in the 60's in Beijing, 4.03% had RHD or rheumatic fever. A similar survey made in a group of 159,782 peasants over 14 years of age in the 70's in Guangdong province revealed that the RHD prevalence was 2.52%.

CHD is the leading cause of death in Western countries although some decline in mortality has been noted in the last decade. This disease was not the main problem in Shanghai or elsewhere in China until the 60's when it began to increase and occupied second place. The remarkable increase in this disease is probably related to prolongation of life span and improvement in living conditions of most Chinese, which may have brought about an increase in certain risk factors for atherosclerosis. Shanghai vital statistics show that in 1977 male life expectancy had reached 70.48 years and that for females was 74.49 years, an average of only 20.5 years longer than before liberation. Similarly, in Beijing life expectancy for males was 71.84 years and for females was 74.20 years in 1979, whereas it was 53.88 and 50.22 years in the 50's. Survey of a group over 40 years of age in Beijing and Shanghai in the 50's disclosed that CHD in the Beijing group (3,367 persons) was 2.45% and in the Shanghai group (7,279 persons) 3.18%. Similar surveys made in the 70's, covering 52,298 subjects from 22 provinces and cities, indicated that the prevalence was 6.46%. Study of CHD incidence in a Beijing group during the 70's showed that it was 8.83% yearly.

A remarkable increase in congenital cardiovascular disease cases seen during the 60's and 70's in our hospitals coincided with the advent of successful open heart surgical procedures. The prevalence of congenital cardiovascular disease in a group of 23,758 school age children in Fujian province and a group of 20,032 children in Anhui

province was 2.3% in the 60's. Data from a survey of 159,782 persons over 14 years of age in Guangdong province during the 70's showed that the prevalence of congenital cardiovascular disease was 1.08%. In a group of 44,710 newborns in Shanghai, 1.07% had congenital heart disease. Compared with the figures from other countries, congenital heart disease is not too common in Shanghai newborns.

The steady percentage of chronic PHD in this series during the last 3 decades indicates that this is still a problem in Shanghai. In the 70's, a mass survey of 4,792,138 persons from different parts of the country for chronic PHD gave a prevalence of 4.7%. Its relative frequency among hospitalized patients in the 70's varied from 5-38% in different areas. It is common in northeast, north, northwest and southwest China. The cold climate in these parts of the country, predisposing to the development of chronic bronchitis, is apparently the cause.

Relative frequency of hypertensive heart disease decreased markedly during the 60's and 70's. This decrease in frequency was not associated with decrease in hypertension. As a matter of fact, hypertension tended to increase during this period. Beijing and Shanghai surveys revealed 7.44 and 6.90% hypertension prevalence in 1958; 10.98 and 8.33% in 1973 and 13.65 and 11.2% in 1979. Thus, the lower number of HHD cases can only be explained by the wide-spread use of effective antihypertensive treatment.

Syphilitic cardiovascular disease decreased tremendously during the past 2 decades as new syphilitic infection has practically been eliminated and many of the patients who had the disease died in the 50's and 60's. This disease became rare in the 70's.

A comparatively higher frequency of myocarditis, cardiac arrhythmias of undertermined cause and idiopathic cardiomyopathy in the 70's is probably related to the improved public medical care system which makes more thorough detection and treatment of these conditions possible. Similarly, the lower frequency of thyroid heart disease, particularly thyrotoxic heart disease is

also apparently due to early detection and treatment of thyrotoxicosis. It is of interest to note that cases of paroxysmal atrial fibrillation without apparent cause were more commonly seen in medical admissions than paroxysmal supraventricular tachycardia cases in the 60's and 70's. A 1978 mass survey made in Guangxi revealed a prevalence of idiopathic cardiomyopathy of 0.58% among 198,644 persons.

The number of older patients with RHD increased in the 70's. This suggested prolongation of life span due apparently to effectiveness of modern treatment, both medical and surgical, for this disease. Similarly, more older patients had CHD, chronic PHD and HHD. Again this suggested a longer life expectancy of these Chinese which offered more chances for these diseases to occur and more effective modern treatment. More teen-age patients with congenital cardiovascular cases seen in this series showed the general trend for more and more patients being investigated and treated in their youth.

Heart failure appeared less frequently among the hospitalized heart cases and the hospital death rate in the 60's and 70's was significantly lower than that in the 50's. These reflected, at least in part, the world wide improved expertise in the treatment of heart failure. However, the outcome of chronic PHD is still quite serious, having the highest hospital mortality rate. Therefore, more attention should be paid to prevention and treatment of the causative respiratory diseases.

Acknowledgement: The authors are grateful to Dr CL Tung and Dr SC Tao for their guidance in the preparation of this paper.

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CSO: 5400/4142

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14 June 1985

PEOPLE'S REPUBLIC OF CHINA

HEBEI ENDEMIC DISEASE CONTROL PROGRESSES

OW190748 Beijing XINHUA in English 0642 GMT 19 May 85

[Text] Shijiazhuang, 19 May (XINHUA)--The incidence of endemic diseases in Hebei Province has dropped by two-thirds thanks to a 30-year effort, provincial endemic disease control institute officials said today.

Of six major endemic diseases in the province, goiter, Keshan disease, Kaschin-Beck disease, brucellosis and cretinism have been brought under control, and the incidence of fluorosis is dropping steadily.

According to officials, these diseases are prevalent in 90 percent of the province, where water is short or contains too many trace elements.

Early 1950's statistics show that about six million people, or ten percent of the provincial population, suffered from these diseases.

The provincial government has allocated much money and medicine to epidemic areas annually since then. Medical teams have been organized and a provincial institute set up to study and guide treatment.

Water with low fluorine has been sunk or diverted from rivers through pipes to high-flourine areas for drinking and medicine provided free of charge in epidemic areas.

In areas where goiter, Keshan disease, Kaschin-Beck disease and cretinism are rampant, iodine and selenium have been mixed with table salt, and medical teams regularly visit patients' homes.

As a result, one-third of the people in high-fluorine areas are able to drink low-fluorine water, and the incidence of fluorosis has dropped gradually.

While treating endemic disease, the department has done much successful research into the causes of endemic disease, epidemiology, diagnosis and treatment.

CSO: 5400/4141

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PEOPLE'S REPUBLIC OF CHINA

MALIGNANT MALARIA CLINICAL ANALYSIS REPORTED

Beijing JIEFANGHUN YIXUE ZAZHI [MEDICAL JOURNAL OF CHINESE PEOPLE'S LIBERATION ARMY] in Chinese No 1, 20 Feb 85 pp 41-43

[Article by Wang Fuxuan [3769 0102 1357], et al., General Hospital of Kunming Command, Kunming: "Clinical Analysis of 144 Cases of Malignant Malaria in Yunnan"]

[Summary] Clinical analysis of 144 cases of malignant malaria from June to October, 1982 and 1983, is reported. The chief clinical features were fever, headache, sweating, hepatomegaly, splenomegaly, rigor (50 percent) and jaundice in one case. Abdominal pain and vomiting occurred in about 25 percent of the cases. Convulsions occurred in one case and coma in seven patients with the cerebral type. Laboratory findings were anemia (48.9 percent), thrombocytopenia (58.4 percent), increased plasma viscosity (55.6 percent) and decreased whole blood viscosity (79.4 percent). There were also pathological signs of eye blood vessels. One hundred thirty-seven patients were infected with malignant malaria alone, and seven contracted it in combination with vivax malaria. The cases were divided into three treatment groups: (1) Single dose of Artemether (300 mg intramuscularly) in combination with antimalarial II (5 tablets orally). (2) Artemether (200 mg daily im), three-day course. (3) Chloroquine (total dose 1.5 gm base orally) three-day course. All patients ultimately recovered, while the first group had the best therapeutic effects. The epidemiologic features, treatment and pathogenesis of malignant malaria are discussed.

9717
CSO: 5400/4133

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PEOPLE'S REPUBLIC OF CHINA

BRIEFS

SHANDONG EPIDEMIC DISEASE--After more than two decades of study, prevention and treatment, Shandong Province has brought malaria under control. By the end of 1984, the incidence of malaria in all the 136 counties and city districts had been reduced to less than 1 per thousand, meeting the requirement for controlling the disease. Of these counties and cities, 89 percent had reduced it to less than 1 per 10,000, reaching the target of basically eliminating the disease. The day is not far off for the province to eliminate this disease in the provincial scope. [Excerpt] [Jinan DAZHONG RIBAO in Chinese 17 Apr 85 p 1 SK]

SHANDONG MALARIA CONTROL--Jinan, 28 Apr (XINHUA)--Malaria which long plagued east China's Shandong Province has been basically brought under control after 2 decades of effort, the provincial public health authorities reported. By the end of 1984, the incidence of malaria in the province had dropped below one per thousand, according to the Shandong Parasitic Disease Research Institute. The rate was below 1 per 10,000 in 121 counties, cities and districts, out of a total of 136. Shandong is one of the malaria-ridden areas in China. From the 1960's, the province committee had considerable amount of labor power and material resources to research, prevent, and treat the disease. Efforts focused on control of the source of infection and regular check-up and treatment of patients. Malaria microscopic examination stations were set up in areas of high incidence. Efforts were also made to fill up waterlogged land and still water pools and eliminate mosquitoes. [Text] [Beijing XINHUA in English 0646 GMT 28 Apr 85 OW]

CSO: 5400/4145

JPRS-TEP-85-010
14 June 1985

PERU

BRIEFS

TYPHOID FEVER OUTBREAK--Sullana, 9 May (AFP)--An outbreak of 2,000 cases of typhoid fever, 800 involving children, has been detected in three shanty towns in the city of Sullana, Piura, 1,072 km north of Lima. [Excerpt] [Paris AFP in Spanish 1955 GMT 9 May 85]

CSO: 5400/2057

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SOMALIA

BRIEFS

72 NEW CHOLERA CASES--A statement from the SDR Ministry of Health released today said that during the last 24 hours 72 new cholera cases have been reported in the refugee camps at Hargeisa town, the Northwest and Awdal regions of the SDR. The death toll during the same period in the same areas was four. The report adds that the campaign to contain the killer disease continues in all the areas where the outbreak has been reported. [Text] [Mogadishu Domestic Service in Somali 1700 GMT 9 May 85 EA]

CSO: 5400/138

FLU VICTIMS HAD LEGIONNAIRES DISEASE; CASES WIDESPREAD

New Diagnoses

London THE DAILY TELEGRAPH in English 4 May 85 p 1

[Article by James O'Brien]

[Text]

TWELVE cases of legionnaires disease—three of them fatal—have been identified among patients affected by the outbreak of illness in Staffordshire which has claimed 27 lives and had previously been described as influenza.

Medical teams are still trying to discover the cause of the outbreak, but Dr John Scully, district medical officer, said they were mystified by its presence over a wide area includ-

ing Stafford, Stone, Cannock, Rugby and Hednesford.

"So far as I can make out, it has not happened like this before but there could be numerous common factors," he said.

Normally outbreaks of legionnaire's disease affect groups of people living in places like hospitals or hotels. But all but two of those who have died during the Staffordshire outbreak had been taken to hospital from their homes.

Dr Scully said the chances for the 70 patients still in hos-

pital were good.

Water check

As part of the search for the cause of the outbreak, geological surveys are being conducted to trace water supplies.

Mr James Bartlett, district manager of the Mid-Staffordshire Health Authority, said that medical experts would be trying to discover links between patients and there would be careful investigation of the circumstances, including plotting the locations where victims lived and tracing their contacts.

Spread of Disease

London THE DAILY TELEGRAPH in English 9 May 85 p 19

[Article by David Fletcher]

[Text]

THE deaths of three more people from Legionnaire's disease in different parts of Britain brings to eight the number of hospitals known to have been infected by the bacterium.

A total of 31 people have now died in the world's worst outbreak at Stafford District General Hospital.

It was disclosed yesterday that patients at St Mary's Hospital, Portsmouth, and Chesterfield Hospital, Bristol, have also died from the disease.

Other hospitals to have been hit are Kingston Hospital, Surrey, Radcliffe Infirmary, Oxford, East Birmingham Hospital, Royal Liverpool Hospital and the University Hospital of Wales, Cardiff.

Stafford hospital, completed only two years ago at a cost of £26 million, is regarded as a showpiece, but one or more of its five rooftop cooling towers are thought to have become infected with the Legionnaire bacterium.

Shower heads

Patients and visitors to the hospital are believed to have

been infected by moisture picked up from the cooling towers by the wind and inhaled.

All the hospitals where the disease has struck have water cooling towers, but this has not always been blamed for the contamination. Inquiries at at least two of them found the bacterium in shower heads or mixer taps.

Dr John Kurtz, head of virology at John Radcliffe Hospital, Oxford, and an expert on Legionnaires Disease, said a survey he had carried out found the bacterium in 17 out

of 26 cooling towers examined—a total of 65 per cent.

He said that manvout breaks had occurred in buildings without air conditioning and samples taken from hotels and hospitals had shown the bacterium in the water supplies of nearly one-third of them.

Greater risk

Despite the prevalence of the organism it was not fully understood why infection was so rare. It was mostly old people who were affected.

Dr Kurtz said that dosage

was important because water with a high bacterium content posed a greater risk. The latest evidence suggested that some strains of Legionella were more dangerous than others.

The Health Department has issued guidelines to health authorities on how to avoid contamination, but a DHSS spokesman said these might be revised in the light of inquiry findings into the Stafford outbreak.

The current guidance is that hospitals should drain and clean cooling towers twice a year and chlorinate the water.

More Outbreaks

London THE DAILY TELEGRAPH in English 11 May 85 p 1

[Article by David Fletcher]

[Text]

THE outbreak of Legionnaire's Disease has spread from Stafford to Stoke-on-Trent, 15 miles away, where one woman has died and two other patients are being treated.

North Staffordshire Health Authority said there was a link between all three patients and Stafford District General Hospital where the outbreak—which has killed 32 people—began.

Mr John Tourt, personnel officer for the Mid-Staffordshire Health Authority, said there had been another confirmed case of the disease at Walsall, 15 miles south of Stafford, and a link had also been established between this patient and the hospital.

132 cases

Another 10 patients have been admitted to the hospital in the past 24 hours suffering from symptoms of the disease, bringing total admissions to 132 of whom 33 have been discharged.

Despite detailed examinations of confirmed patients links have not been established between all of them and the Stafford hospital.

This suggests the hospital's cooling towers—the suspected source of the outbreak—may not be the only cause. The Central Electricity Generating Board is also examining cooling towers at local power stations.

Other cases of the disease have been reported in Portsmouth and Bristol.

CSO: 5440/068

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ZIMBABWE

BRIEFS

MALARIA THREATENS SECT--There has been a serious outbreak of malaria in the Mutanda 2 area of the Marange communal lands, the medical assistant at Marange Hospital, Cde Kuture Chivese, has said. Cde Chivese said the district was inhabited mainly by the Vapostori sect who shun medical treatment no matter how seriously ill they may be because of their beliefs. "The sect believes in spiritual healing, but we are trying our best to persuade them to accept medication. Our persuasion appears to fall on deaf ears." Cde Chivese added that it was not unusual for the district to experience an outbreak of the disease especially during the rainy season. An official from the Provincial Medical Office of Health said she had received reports about the outbreak and action would be taken soon to immunise the people.
[Text] [Harare THE HERALD in English 1 May 85 p 3]

CSO: 5400/139

JPRS-TEP-85-010
14 June 1985

INTER-AFRICAN AFFAIRS

BRIEFS

TSETSE ERADICATION--The EEC has approved a request from Zimbabwe, Zambia, Mozambique, and Malawi to finance the first 3-year phase for the eradication of tsetse flies in the region. The undertaking will cost the EEC \$21 million.
[Text] [Harare Domestic Service in English 1745 GMT 9 May 85 MB]

CSO: 5400/140

OVER 1,000 CATTLE REPORTEDLY DIE FROM DISEASE

Dhaka THE NEW NATION in English 10 Apr 85 p 2

[Text]

SATKHIRA, Apr 8:
Cattle disease broke out in villages of different upazilas under Satkhira district recently.

It is learnt that more than 1,000 heads of cattle died during the past few months.

The worst affected villages are Kadakati, Kachua, Kharity and Par-Kadakati under Assasuni upazila and Muragacha and Krishnakati villages under Tala upazila. No effective measures were reportedly taken by authority to contain the disease, it is alleged.

COMILLA

Cattle disease also broke out in an epidemic form in Barapara, Bijoynagar, Chowara, Goliara and Jagannathpur unions under Comilla Sadar upazila, writes our Comilla Correspondent.

It is learnt that at least 40 heads of cattle died of the disease.

People of the unions have appealed to the authority to take effective measures in this behalf in order to save the cattle wealth.

LALMONIRHAT

Our Correspondent adds: About 150 heads of cattle died of various diseases throughout Lalmonirhat district during last one month.

The affected upazila are Aditmari, Kaliganj, Hatibandha Latgram and Sadar upazilas. Out of these, Aditmari and Latgram are the worst affected.

A total of 100 heads of cattle died in Aditmari upazila alone, it is learnt.

The disease is rapidly spreading in other places. The upazila livestock authorities have not yet taken any preventive or curative measure in this regard. Acute scarcity of medicine is prevailing in all the upazilas livestock offices, it is alleged.

CSQ: 5450/0170

BRIEFS

CATTLE DISEASE EPIDEMIC--Rangpur, April 18--Cattle disease has broken out in an epidemic form in Pirganj, Taraganj, Mithapukur, Kaunia and Gangacharan upazilas. A large number of heads of cattle died of this disease. Many farmers of these upazila have been badly affected following the outbreak of the disease. The Veterinary Hospital in these upazilas are ill-equipped to cope with the situation. Shortage of essential medicines and staff in the hospital are hampering the treatment of cattle disease, it is alleged. Our Barguna Correspondent adds: Anthrax and foot sickness of cattle have spread in an epidemic form in Bamna upazila of Barguna district and already three cows and two buffaloes died following attack of anthrax. It is learnt that the incidences of mouth and foot disease of heads of cattle are so many that the farmers are now handicapped in ploughing their land. On the other hand, the cows and buffaloes cannot take grass or straw or eat grass while a kind of slaver comes out of their mouth. When contacted, the local animal husbandry officials confirmed that no preventive measures have yet been taken. However, they have decided to open camps at Bakabania, Dawatala and Sonalikhats but they complained of shortage of medicine. [Text] [Dhaka THE NEW NATION in English 20 Apr 85 p 2]

POULTRY DISEASE OUTBREAK--Daulatpur, April 30--Poultry disease has broken out in an epidemic form in some parts of Dumuria upazila, according to a report received here. Many birds have died of the disease within a week. The most affected areas are Ranai Kharunia Dumuria. Preventive measures should immediately be taken to combat the disease. [Text] [Dhaka THE BANGLADESH OBSERVER in English 3 May 85 p 7]

CSO: 5450/0170

JPRS-TEP-85-010
14 June 1985

BOLIVIA

BRIEFS

SWINE FEVER THREATENS STOCK--La Paz, 7 Apr (AFP)--The Bolivian Ministry of Agriculture Livestock and Campesino Affairs today reported that 1.5 million pigs are seriously threatened by African swine fever, which has been spreading in various areas of the country. The ministry emphasized that if there is an epidemic, losses could amount to \$50 million unless the appropriate preventive measures are taken. The ministry indicated that it is in contact with member countries of the Cartagena Accord (Venezuela, Colombia, Ecuador, Peru and Bolivia) to carry out a joint project against the African swine fever on the basis of a UN Food and Agriculture Organization program. [Paris AFP in Spanish 1602 GMT 7 Apr 85 PY]

CSO: 5400/2048

JPRS-TEP-85-010
14 June 1985

EL SALVADOR

VACCINATION CAMPAIGN AGAINST EQUINE ENCEPHALITIS

San Salvador LA PRENSA GRAFICA in Spanish 13 Apr 85 p 56

[Text] The Ministry of Agriculture and Livestock (MAG) will carry out a plan of action through the Livestock Development Center, against equine encephalitis, a disease that affects horses.

According to officials from the aforementioned office, an average of 20,000 animals will be immunized, and they anticipate favorable results. The UN Food and Agriculture Organization (FAO) is collaborating in this effort by giving unconditional support for the vaccination against equine encephalitis. They said, "The rural areas favor the horse's protection where horses are not only a means of transportation, but also provide valuable assistance in developing other activities in the countryside."

Upon completing the project concerned with the vaccination campaign against equine encephalitis, the source stated that the MAG Center, with the FAO representation in El Salvador, will submit a final report that will contain information on the distribution and use of vaccines and other materials and supplies, plus an evaluation of the aid provided.

The above [report] will take maximum advantage of the resources and at the same time the largest number of small and medium-sized farmers who have horses.

As was stated, the nonreimbursable technical project signed in the presence of officials of the government and the FAO, supports the vaccination campaign against equine encephalitis for a sum of 30,000 dollars.

In addition, the Vice Minister of Planning Ernesto Allwood reiterated his appreciation and immediate support of the FAO and the effective and prompt negotiation by the FAO's representative in El Salvador, Alfredo Guiljarro.

CSO: 5400/2186

GOVERNMENT NOTES SUCCESS IN FIGHT AGAINST RABIES

Hong Kong SOUTH CHINA MORNING POST in English 12 Apr 85 p 18

[Text]

The Government is winning the battle against rabies.

The Agriculture and Fisheries Department announced yesterday the designated rabies infected area, from which movement of dogs is banned, would be reduced in size today.

The department's director, Dr John Riddell-Swan, said the decision had been taken because no new rabies cases had been reported for six months in Hongkong.

The revised boundaries would limit the danger zone to the closed frontier area, immediately south of the Chinese border.

Dr Riddell-Swan said no dogs would be allowed in or out of the readjusted DRIA, despite the move to reduce its size.

However, there would be no let-up in the Government's drive to eradicate the disease, which is fatal to humans and may be passed on through the bite of a rabid animal.

"Within the rabies infected area stringent anti-rabies measures will continue to be adopted including house-to-house visits to ensure all dogs are inoculated and licensed," Dr Riddell-Swan said.

"Talks and film shows on rabies will be organised and information leaflets about the disease distributed to villagers."

Rabies resurfaced, mainly in border areas, four years ago after being stamped out by an intensive public health campaign in 1955.

Since 1980, three deaths and more than 32 cases of the killer disease have been reported in Hongkong.

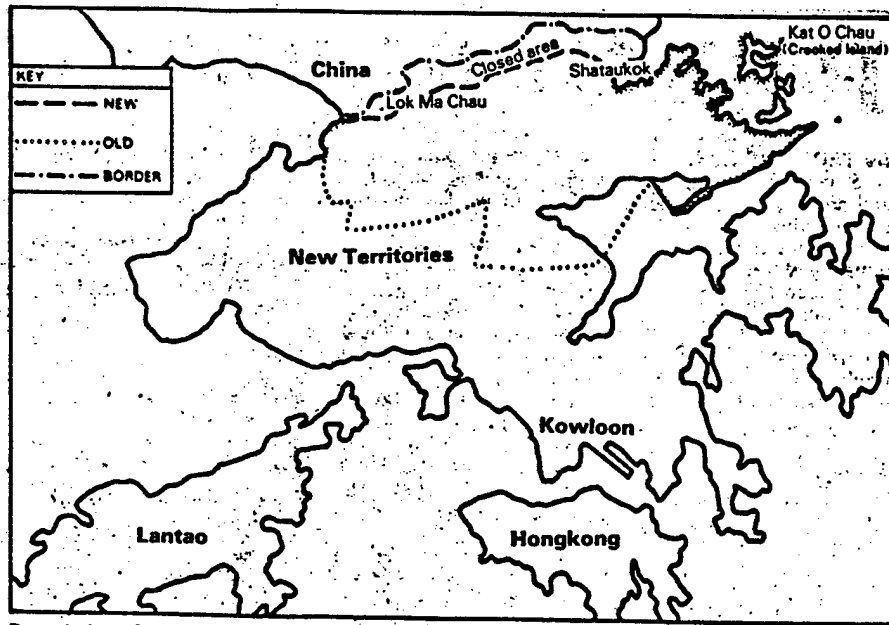
The Government reacted by declaring the designated rabies infected area and embarking on an inoculation programme which has treated more than 224,000 pets.

Special teams of dog handlers, based chiefly in the New Territories, have rounded up and destroyed about 140,000 stray dogs.

An Agriculture and Fisheries Department spokesman warned pet owners that failure to license and inoculate dogs was punishable by a \$5,000 fine.

More than 600 people were last year cited for not keeping their dogs under control or licensing them.

World Health Organisation guidelines provide for Hongkong to be declared rabies-free if no new cases of the disease are not reported for two years.



Boundaries of gazetted infected areas.

CSO: 5450/0141

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ISRAEL

BRIEFS

FOOT-AND-MOUTH DISEASE--A severe epidemic of hoof-and-mouth disease has erupted among deer herds in the Ramot Yissakhar area. Dozens of corpses and many sick deer have been found in the area. Checks conducted by the veterinary services revealed a lethal epidemic of hoof-and-mouth disease which apparently originated in Syria and Trans-jordan. In view of these findings, the agriculture minister ordered the nature reserves authority and the national parks authority to immediately close the areas of Ramot Yissakhar, Nahal Tavor, and Kokhav Hayarden to hikers. A blockade will be imposed on the entire area stretching from 'Emeq Bet She'an to 'Emeq Yizre'el. The director of the veterinary services, Dr Arnon Shimshoni, has said that cattle and sheep herds in Israel have been vaccinated against this lethal disease. [Text] [Tel Aviv HA'ARETZ in Hebrew 24 Apr 85 p 8]

CSO: 4500/4507

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KENYA

BRIEFS

FISH DEATHS UNDER INVESTIGATION--The Lake Basin Development Authority (LBDA) has assigned a team of 10 fish experts to examine Lake Victoria water to establish causes of the recent deaths of many fish in the lake so immediate control measures could be taken. The team, led by Dr Perez Olindo, an ecologist with the LBDA, will also communicate its findings to the Nyanza and Western provincial administrations. Dr Olindo disclosed this when he paid a visit to the Busia DC, Mr Daniel Omangi in his office yesterday. A boat and other equipment for testing the water had been made available and the laboratories for testing samples of dead fish are ready, Dr Olindo said. He suggested that the deaths of the fish might be due to environmental pollution, stemming from discharge of chemical waste into the lake, which was suffocating fish. Dr Olindo cautioned against the eating of dead fish. (KNA) [Text] [Nairobi DAILY NATION in English 15 Feb 85 p 3]

CSO: 5400/135

JPRS-TEP-85-010
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PERU

BRIEFS

ANTHRAX EPIDEMIC THREATENS CONSUMERS--An anthrax epidemic is decimating the cattle in the region of Viru, south of Trujillo, according to a group of cattlemen who reported to the Ministry of Agriculture. The disease was detected in the area called Santa Elena. Since its onset some ten cows might have died. The population is concerned because the meat of the first animals stricken with anthrax could have been sold in the markets, a problem that would cause terrible consequences to the people. They pointed out that the progress of the disease can be considered of epidemic proportions since it spread not only to Santa Elena but also to the valleys of Chao, Cabras, Huancaquito Bajo, and El Carmelo, where a great number of cows could be dead of anthrax. They also said that the characteristics of the disease are a disproportionately swollen belly and blood coming out of the mouth and rectum. Agriculture authorities immediately ordered the vaccination of the cattle in the area and declared all the district of Viru in quarantine, recommending to the veterinarians in charge of approving the marketing of meat in Viru and Trujillo that they refrain from doing so. For their part, the local authorities warned the population not to eat the meat of sick cattle because the disease can kill people when transmitted to humans. [Text] [Lima EL COMERCIO in Spanish 28 Apr 85 p A-16] 12501

CSO: 5400/2050

JPRS-TEP-85-010
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THAILAND

PROGRESS ON ANTI-RABIES VACCINE DISCUSSED

Bangkok THAI RAT in Thai 19 Dec 84 pp 3, 2

[Article: "New Vaccine Against Rabies Developed"]

[Text] Dr Prasoet Thongcharoen, head of the microresearch division of the veterinary department of Sirirat and dean of medical techniques, Mahidon University, was interviewed concerning the progress in the development of vaccines to prevent rabies. He said that Sirirat is now doing research that will bring a new vaccine into use in the care and prevention of rabies. The vaccine is made from a culture of cells from chick embryos. This vaccine only needs to be given six times, gives high protection against the disease without adverse effects, and is inexpensive to make. It is now being used in Japan and Germany. There will also be research on a vaccine made from something called Viro, which also has had good results. It is now being used in France.

The research attempts to discover new vaccines for use in the care and prevention of rabies are because our country has the highest number of afflicted persons in the world. Each year about 300 cases are reported, and in each case a life is lost. And it is believed that many deaths from the disease are not reported. There are now two kinds of vaccines being used in Thailand. One made from sheep brains by the Sawapha Institute and the Pharmaceutical Organization has a high rate of adverse effects--between 1 in 400 cases and 1 in 2,000 cases--through effects to the nervous system and brain that may lead to death if severe. One must be innoculated 17 times, and the degree of protection is low. The Pharmaceutical Organization also has a vaccine made from the brains of piglets, which is better than that made from sheep brains, but less is produced because many piglets must be used, and there is not enough to fulfill the national annual need for rabies prevention vaccines of 100,000 sets. We are able to produce 80,000 sets of the sheep brain vaccine and 10,000 sets of that from piglet brains.

In the past 6 years a vaccine from France made from cells raised in test tubes called Human Diploid has come into use. This type is very safe, provides a high degree of protection without adverse effects, and requires only 6 inoculations, but it is rather expensive--4,000 to 5,000 baht. Developing countries like Thailand where the disease is prevalent are unable to use it widely. But scientists in Europe and other places in the world, together with

Thailand, have studied other types of vaccines and discovered that the vaccine from the cells of chick embryos and the vaccine from Viro cells are not inferior in quality to the Human Diploid vaccine. It is expected that they can be used in Thailand in 1985 and subsequently manufactured in Thailand on our own. At that time we should be able to stop using the sheep brain and piglet brain vaccines.

9937

CSO: 5400/4387

JPRS-TEP-85-010
14 June 1985

THAILAND

ANTHRAX REPORTED IN KANCHANABURI

Bangkok DAO SIAM in Thai 11 Apr 85 pp 3, 11

[Article: "Anthrax Epidemic Communicable to Humans"]

[Text] The Department of Domesticated Animals reports that there is now a major anthrax epidemic among domesticated animals which is communicable to humans. The disease is caused by bacteria that can better withstand heat and dryness and can live in the earth for 10 to 20 years.

The symptoms of anthrax vary. In the very severe variety, the animals fall dead immediately without showing symptoms. They lie down and die in ponds or damp spots. Sometimes they bleed from the anus, nose, mouth, or genitals. In the severe variety, the animals display fever symptoms, they do not chew their cud, they become constipated, their eyes tear, their ears and tails droop, they do not pay attention to the insects that rest on their bodies, their mouths and noses become dry, their teeth become clenched, their breathing becomes fast, their pulse becomes fast, and their body temperature reaches 105 to 107 degrees Fahrenheit.

When a cow has symptoms, if it lies down and does not want to get up, when forced to get up its body becomes tense. The muscle tissue in its back legs quivers. Symptoms are present for one to two days. Before the animal dies, its body temperature becomes lower than normal and it becomes disoriented and falls down.

It becomes tense and has spasms for a while, all four limbs scratch about, its eyes become red and inflamed, its tongue and gums turn pale, its stomach becomes bloated, and it cries out in pain and finally dies. In the chronic variety mostly found in swine, there is a high fever of 107 to 108 degrees Fahrenheit, the neck area is swollen, the tongue swells up, the animal has symptoms of being choked and stops breathing and dies. In a particular variety, the animal may get the bacteria in a wound or, if there is no wound in the coat, swellings may be seen all over its body.

Usually the bodies of the animals that die of anthrax should not be opened up, to prevent the bacteria from getting into the air and making spores. But if it must be done, the utmost care must be taken. Animals that die of this disease decompose quickly. Their abdomens swell and fill with gas. The corpses do not become stiff. The bollod is black and does not harden, while the layer beneath

the hide is swollen with water, and there is blood in the muscles. In cows the spleen swells up, sometimes to more than 10 to 15 times its normal size. Diagnosis of the disease by observing the symptoms is rather difficult, particularly if it occurs in the abdominal area that previously has not been affected by disease, because the animal usually dies before the symptoms become visible. If there is suspicion, cut a piece of the ear or a blood vessel from the head or tail area, and put it in a tightly closed container with ice and send it to the lab labeled "suspected anthrax."

The Department of Domesticated Animals also says that if there are symptoms, contact the provincial or district office for domesticated animals, animal disease care and inspection offices, animal disease survey centers, diagnostic centers, or animal disease labs in the various areas, or the research division of the Department of Domesticated Animals, Phaya Thai, Bangkok 10400.

In addition, the Department of Domesticated Animals is mobilizing 100 veterinary officials with 160,000 doses of vaccine against anthrax to give to farmers in four districts of Kanchanaburi Province and warning the people of the dangers of eating the meat of diseased animals, which can cause death.

This is because anthrax has become epidemic in the four districts of Kanchanaburi Province, with a large number of cattle sick or dead. The Department of Domesticated Animals has not been complacent in mobilizing over 100 veterinary officials from all districts in Kanchanaburi Province, veterinarians of the 7th disease suppression unit, veterinarians from the center, and domesticated animal development volunteers to vaccinate and control the disease among animals raised by farmers in the target areas of the four districts of Kanchanaburi Province. These are the districts of Phommathuan, Bophloi, Thamuang, and the district capital. About 160,000 doses of the preventative vaccine are being used. The vaccinations will take about 1 month beginning on 4 April.

The Department of Domesticated Animals also says that because anthrax is an epidemic that can be severe in all kinds of animals as well as humans, the department is taking various public relations measures, setting up meetings with district and village leaders and the people of all villages of Kanchanaburi Province and using posters, radio broadcasts, and public relations movements to spread information on anthrax and its prevention to the general public to help support the control and prevention of anthrax efficiently.

9937

CSO: 5400/4387

APRIL, MAY SEE WIDESPREAD ATTACKS BY CROP PESTS

Rajbari, Other Areas

Dhaka THE BANGLADESH OBSERVER in English 3 Apr 85 p 7

[Text] Rajbari, Mar 31--The prospect of IRRI-Boro crops has become bleak in Rajbari district. Pests locally known as 'pamri poka' attacked crop plants in vast areas, according to reports reaching here from all the four upazilas of the district.

The reports stated that IRRI-boro crops in vast tracts of land in Mizanpur, Ramkantapur and Banibaha unions under Rajbari upazila; Chotovakla and Debo-gram unions under Goalundo upazila and Islampur, Boharpur and Balikandi unions under Baliakandi upazila and Chandani, Khangoni and Ratandia unions under Pangsa upazila have been damaged by 'pamri poka.'

No step has yet been taken for spraying insecticides in the affected areas. Non-availability of pesticides has become acute in the affected upazilas. The stock position in the government stores is almost nil, it is alleged. In the open market pesticides are available at an exorbitant price. Adulteration of pesticides has become rampant following price-hike.

Our Netrakona Correspondent adds: The prospect of boro-IRRI, jute and aus crops in Netrakona district is bleak due to prolonged drought.

There has been no rain in the district for the last one and a half months resulting in extensive damage to standing boro and IRRI paddy crop. "It is affecting the souring of jute and aus crop.

The situation has turned worse when many of the low-lift power pumps fielded by the BADC under TIP schemes have been lying idle as most of the rivers, canals, beels, ponds and tanks in different parts of the district have dried up following long spell of drought. As a result the boro-IRRI paddy crops in vast tract of lands have turned "reddish" and are on the point of destruction.

According to agricultural experts if there be no rain within a few days 80 percent of the standing crop-boro and IRRI will be damaged, making the district deficit in food.

On the other hand, sowing of jute, aus and broadcasting aman paddy is being delayed as ploughing can hardly be possible on the hard land which developed cracks following severe drought.

Rupganj, Madaripur, Dinajpur

Dhaka THE NEW NATION in English 6 Apr 85 p 2

[Text] Runpganj, Apr 4--About 10,000 acres of IRRI-Boro crops have been damaged following pest attack in Rupganj, Sonargaon and Araihasar upazilas and D.N.D. project under Demra P.S.

It is learnt that cast tracts of IRRI-Boro land in Barpa upazila Murapara under Rupganj upazila, Naogaon under Araihasar upazila, Kanchpur under Sonargaon upazila are withering away following the attack of "Pamripoka," a kind of black pest.

As a result, the IRRI-Boro production target may not be achieved.

Madaripur

Our Madaripur Correspondent reports: About 600 acres of IRRI-Boro paddy in Sariatpur district have been attacked by pests.

Of the affected acreage, about 300 acres are in Bhedarganj upazila, about 150 acres in Naria upazila, and 150 acres in Saritpur Sadar, Damudya and Goshairhat upazilas. Farmers of the areas alleged that insecticides available in the local market are not effective.

Measures have been taken by Agriculture Extension Department to curb the pest attack, says an official source.

Dinajpur

Our Dinajpur Correspondent adds: Crops on 25,000 acres of land is going to be damaged due to scarcity of insecticide in Panchagarh district.

The affected upazilas are Boda, Debiganj, Atwari, Panchagarh Sadar and Tetulia.

On the other hand, insecticides are not available in the open market. Now it is selling at higher price in the black markets which is beyond the reach of poor farmers.

23,000 Acres in Chandpur

Dhaka THE BANGLADESH OBSERVER in English 1 May 85 p 11

[Text] Chandpur, Apr 30--Pests have invaded about 23 000 acres of paddy fields in the district. The worst affected area is Matlab Upazila where about 20 000 acres of IRRI-Boro and Aman paddy fields have been attacked by pests known as 'Pumri.' Out of 22 unions of the Upazila, 20 unions are in the grip of pest menace. The affected unions are Farazikandi, Zahirabad, Eaklashpur, Mohanpur, Kalakandi, Changerchar, Fetepur, East Fetepur, West Sadullahpur, Baganbari, Satanal, Islamabad, Sultanabad, Nayergaon, Durgapur and Matlab. Owing to pests attack, the paddy plants are drying and have become white in colour.

About 3000 acres of lands in Chandpur Irrigation Project Area are also under pest attack. The pest locally known as 'Badami Faring' invaded paddy fields in Rupsa, Baluthuba, Gabindapur, Faridgoni, Chandpur and Raipur under Lakshmipur District. The farmers are combating the pests with insecticide but complained that the insecticide is not effective.

Moreover, owing to high price many farmers cannot purchase insecticide.

An Agriculture Expert told that the farmers often use less quantity of insecticide and as such they do not get the desired result.

The Agriculture Department have sprayed 110 pounds of insecticide in Matlab Upazila free of cost. They are also helping the farmers with spray machines. This year over one lakh fifty thousand acres of land have been put under paddy cultivation in the district. The Chairmen of the union of the affected areas appealed to the Government to save the paddy plants from pests by arranging aerial spray of insecticides.

Jute cultivation is also facing serious setback owing to poor growth of jute plants. It is reported that owing to scarcity of jute seeds the cultivators could not sow jute in time.

Moreover, the farmers alleged that seeds purchased from BADC are of inferior quality.

The recent hailstorn also caused much damage to jute plants. The jute plants also blossoming with flower which is according to farmers the sign of poor growth of jute plants. This year about 50 000 acres of land have been put under jute cultivation in the district.

CSI: 5450/0165

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14 June 1985

BANGLADESH

BRIEFS

PLANT PATHOLOGICAL SOCIETY MEETS IN DHAKA--Plant diseases damages crops worth over Taka 600 crore every year in the country, the inaugural session of the two-day conference of Bangladesh Plant Pathological Society (BPS) at Bangladesh Agricultural Research Institute (BARI) was told. About 700 diseases attack the crops including jute and sugarcane, every year. Sometimes these diseases break out in epidemic form, the session was told. Earlier, Mr S.A. Mahmood, Secretary Ministry of Agriculture, inaugurated the two pathology conferences. He urged the scientists and researchers to help farmers to meet with the problem to enhance production in the fields. He called for preventive measures not merely killing insects as was being done now. Prof Hasan Ashrafuzaman, President of BPS, presided over the inaugural session. Messrs Nilufar Ahmed A.C. Biswas and Kishwar Sultan in their paper on 'major diseases of jute and their control' described ten diseases that cripple growth of jute plant and affects quality of jute fibre. They called for control of various types of diseases of jute through fungicides, practice of sanitation and adoption of cultural practices and finally improvement of the gerinplasma. Similary cotton crop is attacked by black arm and anthracnoses while 22 diseases attacking sugarcane. At least 15 percent yield of sugarcane worth Tk 22 million is lost due to diseases. [Text] [Dhaka THE BANGLADESH TIMES in English 14 Apr 85 p 1]

CHITTAGONG CROP DAMAGE--Chittagong, Apr 22--At least 50 percent of entire standing Irri crops of Chittagong district have been attacked by pests and most of the crops have already been damaged. The worst affected upazila in Hathazari while standing paddy of Raozhan, Rangunia, Boalkhali, Lohaghra, Satkania and Banskhali upazilas were also affected. On the other hand, pesticides supply in markets were limited. Consequently, farmers are at their wits end as to how protect their crops. Concerned circles have appealed to the appropriate authority to take immediate steps to protect the crops. [Text] [Dhaka THE NEW NATION in English 24 Apr 85 p 2]

CSO: 5450/0157

DEADLY FRUIT VIRUS FOUND; ALSO ATTACKS VEGETABLES

Hamilton THE ROYAL GAZETTE in English 8 Apr 85 p 5

[Text]

Scientists have made a significant step in the fight against diseases affecting Bermuda's farms.

The fruit-killing virus CMV has been positively identified for the first time in samples from Bermuda's important banana crop.

The discovery was made by research plant pathologist Suzanne Hearon in the US Department of Agriculture's Florist and Nursery Crops laboratory in Beltsville, Maryland.

Bermuda Government's chief plant protection officer Dr. Roberta Dow described the finding as significant.

"Every time you confirm something and you know precisely what it is, it's an added bit of information we can use.

"We know how to control it by keeping various weeds away from that area. It's im-

portant to know what the causal organism is."

Banana growers have so far been successful in keeping the virus, which causes poor yields, under control by removing infected plants and keeping down weeds, although it is a serious problem in other plants, particularly tomatoes and potatoes.

The disease also affects cucumbers which explains its full name of cucumber mosaic virus.

The bananas studied in the US came from two locations in St. George's.

Extracts from one of the sites indicated a high virus concentration.

The symptoms of the incurable virus in banana plants are yellow streaks and flecks on the leaves. These symptoms were first spotted in Bermuda banana plants

almost 60 years ago, but it has taken until now for them to be positively identified.

It has not so far been an important disease in Bermuda, but Dr. Dow warned that it could be if farmers became less diligent.

Bananas are one of the Island's most abundant farming products.

DISEASE, RATS SAID TO DESTROY 20 TO 80 PERCENT OF RICE CROP

Kuala Lumpur BERITA HARIAN in Malay 7 Apr 85 p 1

[Article: "Between 20 and 80 Percent of the Crops Are Destroyed; Caused by Disease, Rats"]

[Text] Bukit Merah (facing Perai), Saturday [6 April]--Destruction of crops by disease and pests is still a problem, and the Agriculture Ministry is giving great attention to solving this problem.

Mr Anwar Ibrahim, minister of agriculture, said between 20 and 80 percent of the rice crop was destroyed by disease and rats. In Pulau Pinang, 68 percent was destroyed by rats.

The government, he said, is spending between M\$7 and M\$8 million to control plant diseases and pests, especially rats, all over Malaysia.

This, he explained, does not include funds that have been allocated to purchase equipment for researching the eradication of rats. Mr Anwar spoke at the inauguration of a national-level rat control campaign held in the agricultural center here.

According to the minister, the country is capable of producing 1.5 million tons of rice or 70 percent of national requirements annually.

Unregulated Agricultural Practices

Supplies would be greater, Mr Anwar said, if paddy were not menaced by various diseases and pests. He estimated that losses caused by rats were as high as M\$700,000 a year.

Increased destruction by rats, the minister said, is due to unregulated agricultural practices as well as by farmers who allow their land to lie fallow and ultimately turn into a breeding ground for rats.

Earlier, Mr Anwar accompanied some 1,000 farmers and departmental officials as well as officials of agencies under his ministry to hunt and kill rats in several agricultural areas known to be rat breeding grounds.

These rat "storming party members" cut underbrush in the wet rice fields of Sama Gajah Village, Permatang Pasir, Petani Village, Bukit Indera Muda, and Kepala Bukit near here and killed hundreds of rats.

Villages located in this Parlimen Permatang Pau region are known to be the heaviest rat breeding grounds in this country.

Earlier this area was famous as the state's rice barn but it has now become a breeding ground for rats because broad expanses of land were allowed to lie fallow.

Meanwhile, farmers who are still working their wet rice fields do not plant paddy as scheduled by the Department of Agriculture. They also do not do any collective rat control.

The rat control campaign will be carried out all over the country especially in areas where there is heavy rat infestation.

6804

CSO: 4213/221

DISEASE WIPES OUT CROPS

Mbabane THE TIMES OF SWAZILAND in English 26 Apr 85 p 32

[Text] Swaziland is under the grip of crop diseases which are wiping out fruit and vegetable plants at an alarming rate.

This has been disclosed by Professor Rao Yalamanchi, of Luyengo Campus, during an interview.

He said the disease have become a national problem and farmers are losing a considerable amount of money through loss of plants.

The main diseases which are on the rampage are the bacterial wilt and the eelworm.

He said the bacterial wilt mechanically blocks the channel of the plant and prevents water from reaching the leaves. The plant wilts and ultimately it dies.

The disease mainly attacks tomatoes, egg plants, groundnuts, beans, green pepper and potatoes at all stages.

The bacterial wilt is common in Pigg's Peak, Vuvulane, Malkerns and Lobamba areas. According to Professor Rao, a considerable number of plants are killed by disease each year in these areas.

The eelworm attacks mainly pumpkins and tobacco. It also attacks cucumbers, carrots, cabbage, tomatoes, potatoes and spinach at the lower rate.

The eelworm destroys the root. It also cause large swelling in the root. The swelling robs the plant of nutrients. As a result the plant becomes pale, wilts and eventually it dies.

The disease is common in the Lubombo region, southern region and Pigg's Peak area.

Professor Rao explained that the two diseases are most difficult to control because they are in the soil. He added that many farmers are not aware of the existence of the diseases.

Farmers use chemicals which reach the exposed part of the plant and do not reach the soil where the disease is rooted.

Professor Rao advised farmers to make long time rotation of crops and to grow resistant seeds like the Rodade. He stressed that kraal manure is the best solution because it reaches the roots of the plants where the disease is rooted.

They are also a few other seeds from Taiwan which resist the diseases. Although the seeds "beat" the disease, the fruit produced is small.

He disclosed that the crop disease is also rife in the campus fields. Tomatoes have been planted but were wiped off in an instant.

According to Professor Rao, the crop diseases strike hard during summer or the rainy season when the conditions are favourable. That is the time farmers should start spraying plants and kill insects.

During the winter season farmers should not be worried because the disease is inactive.

He made an example that between December, January and February, one cannot find a decent spinach and most of it has tiny holes.

This is caused by fungi. The beetroot also is the same at that period of the year.

The campus is presently doing a research and is trying to obtain more information about the behaviour of the disease. It is expected that the research will provide a long-term solution which will go a long way to solve crop problems which are presently affecting farmers.

CSO: 5400/136

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VIETNAM

NORTH'S RICE GROWERS MUST COMBAT DROUGHT, PESTS

BK141436 Hanoi Domestic Service in Vietnamese 0500 GMT 14 May 85

[Text] Rainfall has been reported recently, but its amount has been insignificant. For this reason, the drought-stricken rice area is increasing in many localities.

According to the Ministry of Water Conservancy, 202,000 hectares of rice in the northern provinces have been seriously affected by drought. In each of the municipalities of Hanoi and Haiphong and the provinces of Ha Son Binh, Hai Hung, and Thanh Hoa, from 10,000 to 40,000 hectares of rice have been hit, 5,000-10,000 of them seriously.

Rain and storms were reported in many Bac Bo midland and delta provinces on the night of 12 May, but the precipitation amounted only to 5-10 millimeters and the drought-affected spring rice area remains large. In these localities, harmful insects and diseases have developed in more than 209,000 hectares, which were mainly hit by rice blast.

In the north, the spring rice plants are in the budding stage, which will peak in the next 10-12 days. Drought, harmful insects, and diseases will reduce rice yields and output. All localities, together with various sectors and installations, should concentrate their efforts on applying numerous measures to control the drought and exterminate the pests, striving to reduce the drought- and pest-stricken rice areas and to prevent the spread of harmful insects and diseases.

CSO: 5400/4390

COUNCIL OF MINISTERS ON DROUGHT, PEST CONTROL

BK160607 Hanoi Domestic Service in Vietnamese 2300 GMT 15 May 85

[15 May 1985 Council of Ministers message to "various localities from Nghe Tinh Province North"]

[Text] The 5th-month spring rice plants are blossoming, but at present hundreds of thousands of hectares lack water. In some areas, which are experiencing severe drought, the rice plants cannot blossom. Along with this, harmful insects and diseases are developing on a widespread basis.

To ensure success for the 5th-month spring rice crop, the chairman of the Council of Ministers requests the following:

1. All northern provinces and municipalities from Nghe Tinh north must mobilize all forces and means to obtain water and satisfactorily make use of irrigation projects, and, at the same time, must seek all possible measures to control and eliminate harmful insects and diseases that are now ravaging the rice crop.
2. All provinces and municipalities must, on the basis of the most economical use of electricity, resolutely avoid using electrical power for unnecessary purposes and tapping power sources illegally so that electricity can be reserved for operating water pumps to save the rice crop from drought. In this spirit, every locality must carefully calculate the wattage and duration of power needed for pumping water and immediately send their requests to the Ministry of Power and the Northern Power Corporation. The Ministry of Power and the Northern Power Corporation have the responsibility to contact the various localities promptly and arrange to supply the requested wattage at the proper voltage for the duration needed for drought control.

First of all, electrical power must be supplied immediately to Nghe Tinh, Thanh Hoa, Ha Nam Ninh, Ha Bac, and Thai Binh Provinces to operate water pumps to control drought. Once drought is under control, the locality concerned must immediately report this to the Ministry of Power and the Northern Power Corporation so that power will be discontinued or reduced. Electrical power reserved for drought control must absolutely not be used for other purposes.

The Ministry of Power, together with the Ministries of Water Conservancy and Agriculture, shall coordinate with the various localities in closely controlling the use of electricity for drought control and petition the responsible organs to deal promptly with cases involving violation of state regulations on power usage.

3. The Ministry of Agriculture must actively assist and guide the various localities in promptly preventing and controlling the outbreak of harmful insects and diseases and in particular must satisfactorily move insecticides from localities having a surplus to those especially needing them to ensure the control of harmful insects and diseases.

CSO: 5400/4390

FIFTH-MONTH SPRING RICE AFFECTED BY DROUGHT, INSECTS AND DISEASES

Hanoi NHAN DAN in Vietnamese 16 Mar 85 p 1

[Article: "Promptly Supply Water and Insecticide for Fifth-Month Spring Rice"]

[Text] This year most of the fifth-month spring rice area in the northern provinces has been planted during the best part of the season. Early spring rice and main-planting spring rice account for a high percentage, as much as 60 to 70 percent (late spring rice accounts for only about 10 to 20 percent). In the localities, depending on the variety and the seasonal schedule, the planting density, which has been greater than normal, is 40 to 60 clusters per square meter. The various places have been concerned with guiding the creation and expansion of high-yield rice areas and have concentrated investment on intensive cultivation, so the fifth-month spring rice is developing rather well. Especially in the provinces from Thanh Hoa to Binh Tri Thien the rice is better than at the same time last year.

Since the beginning of March the temperature has dropped and there has been scattered light rain everywhere, but the volume of water is not yet sufficient. At the same time, only 40,000 to 4,000 kw of electricity has been supplied since the end of February, and it has been concentrated in a period of 4 or 5 hours a day (in the past, 70,000 to 85,000 kw were provided every day and was available 20 to 24 hours a day). In the key areas with electric-powered pumps many pumping stations do not have electricity, so the water-short rice area is expanding rapidly. According to the Ministry of Water Conservancy, nearly 200,000 hectares of fifth-month spring rice are affected by drought. In such provinces and municipalities as Thanh Hoa, Ha Nam Ninh, Hai Hung, etc., between 19,000 and 28,000 hectares of rice are waterless. The drought-stricken area will continue to expand once the weather becomes warmer. Meanwhile, the tendency for insects and diseases to arise and develop has increased steadily. According to a notice of the Vegetation Protection Department, rice blast is widespread in the provinces of the former Zone 4. In Nghe Tinh Province alone about 50,000 hectares are affected. In the provinces of Thai Binh, Ha Nam Ninh, Ha Bac, etc., rice hispa eggs have been discovered over a large area in rather great density; on the average, there are 20 to 30 rice hispa eggs per square meter. Stem borers have also appeared here and there in a number of localities and are half way through the cocoon stage. That is an increase of 20 to 50 percent over the same period last

year. But insecticides have not yet reached the localities or are still in short supply.

Because of the shortage of water and insecticides the rice has not tillered and the various kinds of insects and diseases have arisen and developed (in places without water rice blast has developed even more rapidly).

The tending of fifth-month spring rice has a decisive effect on increasing rice yields. In addition to closely managing the rice tending schedule, urgent requirements at present are concentrating labor and the existing facilities to bring water to the paddies and retain sufficient water to nourish the rice so that it can tiller, reducing the rice area affected by drought, and not allowing insects and diseases to spread.

In the immediate future, the localities must inspect the fields, find out how much of the rice area is affected by drought, insects, and diseases, and promptly guide the salvation of that area. With regard to the existing water reserves in canals, ditches, ponds, and lakes, priority must be given to ensuring sufficient water--one or two centimeters--for fields now affected by rice blast. At the same time, the amount of nitrogenous fertilizer required by that area must be closely calculated. In the immediate future insecticides will be in short supply, so it is necessary to concentrate them on rice areas heavily damaged by insects and diseases, to pick off egg clusters and clear leaves of eggs by hand, and to use such existing elimination experiences as using soot and kitchen ashes to eliminate insects and diseases.

The relevant sectors, especially the agricultural, electric power, and water conservancy sectors, must help the localities rapidly obtain sufficient water and insecticides to protect the harvest.

5616

CSO: 5400/4377

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14 June 1985

VIETNAM

INSECT RAVAGES REPORTED IN NORTHER PROVINCES

OW262145 Hanoi Domestic Service in Vietnamese 1100 GMT 23 May 85

[Text] A notice by the Agriculture Ministry's Vegetation Protection Department says that brown planthoppers have appeared in many northern areas, with a 500-1,000 density per square meter in many areas. Some locals in the provinces of Ha Bac, Ha Nam Ninh, Haiphong, and Lang Son have been experiencing brown planthopper burnouts. Haiphong has 1,500 hectares affected by brown planthoppers; in Nghe Tinh, 10,000 hectares have been ravaged, including 105 burned-out hectares.

The Vegetation Protection Department has sent the following message to the northern provincial agriculture services:

The brown planthoppers born in mid-May have been proliferating, with a pretty high density, causing local burnouts. The weather conditions in late May and early June are still favorable for planthopper proliferation and ravages. All localities should make close checks and stamp out planthopper pockets in time.

In order to do a good job in wiping out planthoppers, each locality should organize checks on rice paddies and discover the most efficient measures to get rid of planthoppers. In wet paddies, kerosene or diesel oil should be used in eradicating young planthoppers. In dry paddies, where oil or kerosene cannot be used, half diluted (Vofatox) should be used. Also, (Mycin) and (Basa) are proper insecticides for planthopper elimination. If those insecticides are not available, powdered 666 insecticide can be mixed with straw cinders or powdered dirt, at a 6-100 ratio, for spraying on rice plants.

All possible measures must be used to contain planthopper ravages in the coming period.

CSO: 5400/4391

END