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# *JPRS Report*

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# Epidemiology

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# Epidemiology

JPRS-TEP-91-019

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17 September 1991

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## ANGOLA

### **Cholera Kills Five in Noqui**

91P40380A Luanda JORNAL DE ANGOLA  
in Portuguese 4 Jul 91 p 3

[Text] A health spokesman informed ANGOP [ANGOLAN PRESS AGENCY] that five deaths have resulted from the 95 cases of cholera registered last week in Noqui municipality, Zaire Province. According to the Zaire Provincial Health delegate, Lusito Simao, sufficient data are not available to determine the severity of the disease. He added that a team from the Anticholera Program will travel to the area to reinforce the health personnel already there.

### **Malaria in Kwanza Norte Reportedly Controlled**

91WE0445C Luanda JORNAL DE ANGOLA  
in Portuguese 23 Jun 91 p 3

[Text] During the first quarter of this year, 16,131 cases of malaria were brought under control in Kwanza-Norte Province, according to a report from the Provincial Directorate for Public Health and Disease Control.

The report indicates that during the same time, 730 patients with malaria were admitted to hospitals in the province and 13 deaths were recorded.

The report also points out that there were 591 fewer cases of the disease than during the same period last year.

The number of patients hospitalized increased by over 293, while figures for deaths from this disease went down by nine.

The age group of 0-4 years was the most affected, with 468 hospitalized, and 10 dying from the disease during that quarter.

Other diseases regarded as endemic in Kwanza-Norte Province are acute respiratory and diarrheal diseases, including cholera, whooping cough, and measles, that affected a total of 3,650 persons, 25 of whom died.

### **Success of Bie Vaccination Campaign Described**

91WE0445A Luanda JORNAL DE ANGOLA  
in Portuguese 26 Jun 91 p 2

[Article by Amado Carique]

[Text] From our office in Kuito. From January to May of this year, the public health department of Bie's Provincial Health Commission administered 3,906 vaccinations against tetanus, 1,592 against yellow fever, 1,010 against diphtheria and whooping cough, 396 against measles, and 215 against polio.

This department also conducted about 800 prenatal examinations, saw 2,825 children, attended 177 births, and made 16 house calls. It was also learned that during

this period of time, there was no residential spraying because of a lack of chemicals for that purpose.

This information was disclosed during an interview that the JORNAL DE ANGOLA reporter held last week in the city of Kuito with the provincial director of the public health department of the Bie Commission, Bento Samuel.

That official indicated that Bie Province usually has two maternal-child health care centers in operation, but one of them located in Kunje district is not fully equipped as a result of the devastation it incurred in January of this year.

He pointed out that new facilities to replace the Kunje maternal-child health center are already being planned. They will be supplied with clinical material donated by the United Nations Equipment Fund, and will have the services of a medical team comprising a physician, two nurses, and an administrator belonging to the humanitarian organization, Doctors Without Borders.

According to our source, during that same period there was a job training seminar for traditional midwives, the main purpose of which was to improve home-birth techniques.

### **Difficulties in the 22 Ongoing Programs**

A few problems linked to difficulties in acquiring nutritional food, material to build latrines and refrigerated compartments, and transportation in the municipalities hindered development of the 22 programs currently under way in the province, especially the programs for water conservation and sanitation, vaccination, epidemiological monitoring, and health education.

As regard the acceleration of the vaccination program, Bento Samuel said that they were planning to initiate a special activity that will probably begin on the 1st of July. He is referring to a vaccination against seven preventable diseases, i.e., measles, tuberculosis, poliomyelitis, yellow fever, diphtheria, tetanus, and whooping cough.

He also pointed out that this activity will be conducted in the outlying neighborhoods of this city, and will continue until the population of Kuito is free of these seven diseases. However, in the past five months, the provincial health facilities in Bie have recorded 973 cases of malaria that caused 17 deaths, 80 cases of tuberculosis (11 deaths), 46 cases of schistosomiasis, and 18 of filariasis, with no deaths.

In addition to the provincial hospital, there are presently the following health facilities in Bie: three municipal hospitals located in Camacupa, Andulo, and Chinguar; six health centers; nine maternity clinics; 68 health posts; and, 82 health promotion posts in enterprises and 188 rural ones.

**Namibe Central Hospital Lacks Blood Supply***91WE0445B Luanda JORNAL DE ANGOLA  
in Portuguese 23 Jun 91 p 3*

[Article by Baptista Marta]

[Text] (From our Namibe office.) N'gola Kimbanda Central Hospital in Namibe has been afflicted with serious problems recently, namely a shortage of medicine, poor food for the patients, and a continued shortage of blood, a situation that calls for urgent action by the competent entities.

A source indicated that for reasons unknown to him, donors are not giving blood as much, and needs have doubled, primarily as a result of surgery and road accidents.

In the meantime, Namibe's provincial officer for the Angolan Red Cross, Olisa Pinto, in statements on the blood shortage at the hospital, told JORNAL DE ANGOLA that relations between service agencies and health services, so that people who give blood can be provided with food, are virtually nonexistent or merely administrative in nature, and, with rare exceptions, no priorities are observed.

Continuing in her analysis of what is happening there, Olisa Pinto said that she could not understand why a person who volunteers to give blood would not receive afterwards "a piece of fried fish". Legal entities, and mainly the health commission itself along with other participating agencies, should create the minimum conditions.

Yet, as Namibe's Red Cross official asks, who has not needed blood at some time for himself or for another member of his family?

Who can remain insensitive to the anguish of a person with no family, whose life is dependent on a little blood?

To give an example of this, this official referred to a case last month in which a member of the regional hospital's staff (it is assumed to be the pediatrician) did not have one drop of type "B" blood to save the life of a nine-year old child.

In view of reports of a total lack of coordination between various agencies and the health department, an emergency meeting was held last month under the auspices of the deputy provincial governor for social matters, Martins Torres. At that meeting, people joined forces in an effort to overcome the current problems of a shortage of food for both donors and the patients in hospital. Food in all the provincial health services is in short supply.

In the view of the Red Cross official, what is good for some is good for the patients, and also for those who humanely offer to save the lives of others. "We should all look around us and reflect, because we have become used

to everything and accept things, but the Namibe Red Cross Office does not even have an ambulance to pick up donors.

Namibe's Red Cross Office currently has a list of 678 donors. Of these, 409 gave blood last year, supplying 214,390 cubic centimeters of blood for needy people in the region.

**Minister Inaugurates New Hospital Facilities***91WE0445E Luanda JORNAL DE ANGOLA  
in Portuguese 23 Jun 91 p 3*

[Article by Garrido Fragoso]

[Text] As of yesterday, Neves Bendinha Hospital located in the municipality of Kilamba Kiayi in Luanda has an intensive care unit and an operating unit that will give it a certain autonomy and efficiency in caring for burn patients, residents of the municipality, and of other parts of the city of Luanda.

Health Minister Flavio Fernandes inaugurated these units, that will be open to the public on Monday, in a ceremony attended by Luanda's provincial governor, Kundi Paiama, the CICS (International Development Cooperation Center) representative who managed the project, Emidio Totaro, and other guests.

In addition to the intensive care and the operating units, made up of a presurgery room, an operating room, a bathroom, two rooms for adults with three beds each, and one children's room, among others, this hospital will also contain a gymnasium for physical therapy, an X-ray room, and a laboratory for clinical analyses.

The wards now being opened are totally equipped. They were built under a project for the complete refurbishing of the hospital, that received financing valued at 1 million ECU's [European currency units] from the EEC, administered by the CICS.

In his speech, Flavio Fernandes referred to the importance of this enterprise for the community, and he pointed out that: "For the first time in Luanda there will be a surgical unit in the municipality. This clearly indicates the interest of the country's health authorities in the people's well-being."

He went on to say that all the Neves Bendinha Hospital's technicians would have the privilege of learning from physicians with international training and experience, mobilized by the CICS under the project.

One of the issues concerning the hospital director, Ana Mhula, is a shortage of water. Despite the fact that the unit has a 50,000-liter tank, it is supplied daily by CPL [Provincial Government of Luanda] with only 5,000 liters.



Ana Mhula had the following to say: "This hospital can only function satisfactorily if it is assured of a continuous supply of water. Otherwise, the project will be a total failure."

#### **Patients in Bie Hospital Exceed Capacity**

*91WE0445D Luanda JORNAL DE ANGOLA in Portuguese 30 Jun 91 p 3*

[Text] (From our office in Kuito.) JORNAL DE ANGOLA has learned from the administrative director of Bie Provincial Hospital, Antonio Camarada, that with the gradual increase in patients in some wards, and especially in the pediatric and medical wards, the hospital's current capacity has been exceeded.

Antonio Camarada said in a recent statement to JORNAL DE ANGOLA that Bie Provincial Hospital was not receiving regular supplies of the most common medicines and food, and that it also had a shortage of doctors to handle the increased number of patients.

Currently, this institution has 20 wards, including maternity, medicine, pediatrics, sanatorium, orthopedics, and surgery, and there are 53 nurses and a real capacity of 300 beds, our spokesman went on to say.

The hospital at present has the services of four Angolan physicians specializing in general clinical medicine, with only one staff member and seven Vietnamese to cover medicine, pediatrics, and other specialties. It also has 38 middle-level health technicians, seven employees at an equivalent level, and 197 basic health care workers, in addition to 258 employees doing administrative work.

It was learned that for the second quarter of 1991, the number of patients in hospital is around 300 to 400, because of certain diseases found in this southern Angolan province, such as malaria and certain respiratory diseases.

In view of this situation, the work program of the Provincial Health Commission for the Bie region for the "post-war" period includes plans first to repair the health facilities destroyed by the war, second to equip them, and third to train staff to operate these facilities.

The Health Office also has plans to step up and expand environmental sanitation activities and to increase the number of lectures on nutrition so that foods rich in proteins and calories can be produced locally to combat malnutrition. These and other plans will be carried out possibly up to mid-December 1991, according to an official source.

### **GHANA**

#### **Cholera in Bolgatanga District Spreading**

*91WE0455A Accra PEOPLE'S DAILY GRAPHIC in English 12 Jun 91 p 16*

[Article by Iddrisu Seini]

[Text] The outbreak of cholera in the Bongo and Bolgatanga districts are still spreading.

Hospital authorities recorded 367 cases with two deaths at the Akantome JSS where the patients are occupying five classroom blocks as at Tuesday.

The authorities told the Graphic that more cases are being reported at the school camp.

The authorities have already banned the open sale of food and pito, the number of reported cholera cases last Wednesday stood at 140.

Meanwhile, the Chopbar Keepers Association has called on both the Regional Administration and the Bolgatanga District Assembly to lift the ban to enable its members to cook for their numerous customers particularly bachelors and visitors.

It said a lot of people in the town and visitors who travel from far places to the town find it difficult to get food to eat.

Mr. Alhassan Amoah, secretary to the association argued that the disease is spreading despite the ban on chop bars, adding that none of the chop bar owners or their employees are suffering from the disease.

Mr. Amoah blamed the whole situation on the poor sanitation in the town saying that if the assembly has no funds to organize clean up campaigns it can organize residents to tidy up their own surroundings.

#### **N. Region Annual Report Disease Statistics**

*91WE0455B Accra PEOPLE'S DAILY GRAPHIC in English 13 Jun 91 pp 1, 8-9*

[Article by Kojo Sam]

[Text] Malaria continues to be the most predominant disease in Northern Region.

It is followed immediately by diarrhoeal diseases, the region's annual health report for 1990 just released at Tamale has stated.

The report noted that there was an upsurge in the 10 top causes of Out-Patient Department (OPD) attendances and admission in the health centers in the region in 1990.

While a total of 82,451 people were affected by the top diseases in 1989, the figure rose to 126,128 patients, representing an increase of 81 percent.

A breakdown of the statistics indicate that whereas in 1989, 40,824 persons visited the health center with malaria, the figure went up to 66,585 in 1990. Diarrhoeal diseases grew from 12,495 in 1989 to 15,901, while upper respiratory infection shot up from 6,314 in 1989 to 9,377 in 1990.

For all other diseases 1989 recorded 5,877 while this figure went up to 6,948 last year, accidents recorded in 1989 totalled 4,048 but this went up to 5,673 in 1990 intestinal worms recorded at the health centers in 1989 was 2,599 but this also went up to 4,526 last year.

Pregnancy and related complications for 1989 was 2,260 but rose to 3,293 in 1990, anaemia was 2,109 in 1989 but grew to 2,971 in 1990, while pneumonia in 1989 was 1,326 but it also went up to 2,875 last year.

The report pointed out that many Non-Governmental Organization (NGOs) are engaged in the provision of potable water in the region. It is therefore anticipated that with intensive health education the incidence of diarrhoea will be brought down in the coming years.

On distribution of HIV positive on district basis, the report stated that in Tamale, 28 cases were reported in 1990 as against eight in the previous year.

West Gonja (Damongo) recorded three cases in 1989 but last year 17 cases were reported, while East Mamprusi (Gambaga) recorded two and East Gonja (Salaga) one, all in 1990, bringing the total number of HIV cases in 1990 to 48 as against 13 in 1989.

For family planning, the report said about six percent of women in productive age group used recognised contraceptive methods. There were only 5,357 men acceptors of family planning contraceptives in 1990.

The report stated that there were 11,554 old acceptors of family planning methods in the region.

### Medical Field Unit Still in Operation

91WE0455C Accra *PEOPLE'S DAILY GRAPHIC*  
in English 3 Jun 91 p 8-9

[Article by George Sydney Abugri]

[Text] The Medical Field Unit (MFU) which was in the forefront of the highly successful medical battle against yaws, bilharzia, trypanosomiasis (sleeping sickness) and onchocerciasis (river blindness) several decades ago is still an active unit of the Ministry of Health, a senior official of the unit has disclosed.

Mr. Abdulai Bashugu Madah, Superintendent of the unit at Wa, explained that the unit is now concentrating on the control of communicable diseases and the battle to eradicate the six childhood-killer diseases.

Mr. Madah said the MFU maintains a regular surveillance on communicable diseases and promptly investigates all reports of outbreaks of any strange diseases.

He was answering questions from the Graphic on the role of the MFU as a health institution now that the unit has long accomplished the task of helping to eradicate yaws, sleeping sickness, river blindness and bilharzia which it set out to do in 1930s.

Mr. Madah said apart from playing a leading role in the immunization of children against the six-childhood killer diseases, the MFU conducts immunization against yellow fever, cerebro spinal meningitis (CSM), tetanus and other diseases.

The MFU Principal Superintendent disclosed that sleeping sickness has virtually been eliminated in the country, adding that in the Upper West Region the last case was diagnosed in the Wichau area in the early 1970s.

He said except for occasional cases with the largest number usually coming from the Brong Ahafo and Western Regions, yaws, a contagious skin disease characterized by sores, has generally been brought under control.

The onchocerciasis control programme has successfully eradicated river blindness from formerly endemic areas while bilharzia has been reduced to a very bare minimum in many parts of the country, he added.

## MOZAMBIQUE

### Cholera Outbreak Kills 57 in Sofala Province

MB0508151891 Maputo Radio Mozambique Network  
in Portuguese 1030 GMT 5 Aug 91

[Text] Four to six people suffering from cholera are being admitted daily to the Beira Central Hospital. According to Radio Mozambique in Beira city, a total of 57 deaths have been reported since cholera broke out in Beira city and in Dondo, Nhamatanda, and Marromeu Districts, as well as in the Mafambisse location.

The source said that malaria is also one of main causes of infant mortality in Beira city.

## NIGERIA

### Sokoto State: Cholera Kills 21

AB0908200091 Lagos Radio Nigeria Network  
in English 1500 GMT 7 Aug 91

[Excerpt] A fresh outbreak of cholera has been reported in Zuru and Gbada local government areas of Sokoto State. Already, 17 people are said to have died as a result of the disease. Biodun Odunoga, who visited the areas, now reports. [Begin Odunoga recording]

**Odunoga:** The number of those who have died as a result of the outbreak in Zuru Local Government has increased to 21. The areas mostly affected by ravages [word indistinct] are Kangi area of Fakai District, Dalantane and Tera areas. Alhaji Sanni Tasoja, who is the chairman of the local government, commended the state government for assistance rendered so far to curb the disease. Alhaji Tasoja stated that [words indistinct] the Zuru general hospital revealed that about 117 cases have been admitted on the daily basis. [passage omitted]

**Cuba, Nigeria Sign Health Agreement Under UNDP**

*AB2807094091 Kaduna Radio Nigeria in English  
1700 GMT 25 Jul 91*

[Text] Nigeria and Cuba have signed a health agreement under the auspices of the United Nations Development Program. Under the agreement, 31 doctors from Cuba are expected in the country for the program. The minister of health, Prof. Olikoye Ransome-Kuti, who signed on behalf of the government, explained that the doctors would serve on needy areas like Borno, Sokoto, Gongola and Plateau States. The Cuban ambassador to Nigeria, Mr. Ramon Alonso Hedina, expressed the hope that both countries would explore other avenues of further cooperation.

**SOUTH AFRICA**

**Nine Deaths From Shigella Dysentery Epidemic**

*MB1408152291 Johannesburg SAPA in English  
1506 GMT 14 Aug 91*

[Text] Cape Town Aug 14 SAPA—The death toll at Cape Town's Lentegeur Hospital, which has been plagued by a shigella dysentery epidemic since May, has risen to nine, SABC [South African Broadcasting Corporation] radio news reported on Wednesday.

Three more cases, all of them staff members, have also been reported ill. At least 133 people, among them 30 staff members, have contracted the disease so far.

**Anthrax at Kruger National Park Spreading North**

*MB0708130091 Johannesburg South African  
Broadcasting Corporation Network in English  
1100 GMT 7 Aug 91*

[Text] Anthrax in the north of the Kruger National Park is spreading further north, and about 600 animals have died so far. The head of nature conservation in the park, Mr. Johan Klopper, told our Nelspruit news staff that the inoculations were being done to prevent the disease from spreading to the southern part of the park. He said that he hoped the disease, contracted mostly by kudu and buffalo, had reached its peak.

**'About 2,000' Animals Killed by Anthrax in 12 Months**

*MB0908133491 Johannesburg South African  
Broadcasting Corporation Network in English  
1100 GMT 9 Aug 91*

[Text] About 2,000 animals have died of anthrax in the past year in the Kruger National Park. More than 600 of these have died since June.

A parks spokesman said that the disease had already spread to Pafuri in the north, and was moving southwards along the Lebombo Mountains.

It was mainly buck that had died, although elephant and lion had also been struck down by the disease. More than 1,000 animals died from anthrax in the Kruger Park last year.

The spokesman said that an inoculation program would be undertaken next week.

**ZAMBIA**

**Highest Number of Cholera Cases in Africa**

*MB0108202091 Lusaka Zambia National Broadcasting  
Corporation Network in English 1800 GMT 1 Aug 91*

[Text] Zambia has recorded the highest number of cholera cases in Africa as of mid-July this year. According to a WHO press statement, Zambia also recorded the third highest number of cases after Peru and Ecuador in the latest outbreak of cholera in the 30-year-old epidemic of the disease.

As of July, WHO had received reports of 45,159 cases of cholera in Africa, of which 11,356 cases with 981 deaths were recorded from 10 other African countries. Nigeria recorded 7,674 cases, with 990 deaths.

The report says the death rate [words indistinct] from six percent to 10 percent in some countries, but as high as 30 percent in some areas.

**ZIMBABWE**

**Outbreak of Foot and Mouth Disease on Border with RSA**

*MB0908205491 Johannesburg Radio RSA in English  
1500 GMT 9 Aug 91*

[Text] A fresh outbreak of foot and mouth disease has been reported on Zimbabwe's border with South Africa.

Veterinary authorities in Zimbabwe say that the situation is however under control and that the latest outbreak will not affect the country's beef export to the European market.

A ban on Zimbabwe's beef exports to the European Community was lifted late last year after being imposed following an outbreak of foot and mouth disease in 1989.

The latest outbreak which occurred in the Chikwarakwara area in southern Zimbabwe is believed to have been caused by stray buffalo from South Africa.

### Medical Workers in Flooded Hunan Work To Prevent Disease

*OW2407151791 Beijing XINHUA in English  
1336 GMT 24 Jul 91*

[Text] Changsha, July 24 (XINHUA)—Medical workers in central China's Hunan Province have been preventing epidemics in drought and flood-hit areas.

Floods or torrential rains have hit northwest Hunan and areas around the Dongting Lake since late June while drought has been striking central and south Hunan.

In order to prevent flood-related epidemics such as hand and foot dermatitis and snail fever, the provincial public health department has sent epidemic prevention working groups and snail fever prevention working groups to drought-hit south Hunan and flooded north.

In the meantime, the department urged public health organizations at all levels to make utmost efforts to prevent epidemics.

The province has allocated 500,000 yuan (about 100,000 U.S. dollars)'s worth of medicine to areas hit by droughts and floods.

A provincial public health official said that over 239 medical teams have been sent to treat victims and vaccinate people in those areas against epidemics.

Each village in those areas has at least one medical worker to monitor epidemic situation and do epidemic preventive work.

The official added that 59 snail fever prevention groups have gone to Changde City, the worst flooded areas in the province.

### Health Official Warns of Epidemic in Flood-Stricken Areas

*HK0208110491 Beijing ZHONGGUO XINWEN SHE  
in Chinese 0532 GMT 2 Aug 91*

[Report: "Chinese Public Health Ministry Spokesman Warns of Epidemic Diseases Following a Large-Scale Natural Disaster"—ZHONGGUO XINWEN SHE headline]

[Text] Beijing, 2 Aug (ZHONGGUO XINWEN SHE)—As a rule, "great natural disaster is usually followed by widespread epidemic." Professor Dai Zhicheng, director of the Epidemic Prevention Department of the Ministry of Public Health of China, yesterday confirmed that his department is facing a very urgent and heavy task in epidemic prevention, especially in August and September.

Professor Dai said: Since a nationwide epidemic prevention operation was already started in May, so far the epidemic situation has been kept under control in all the flood-stricken areas, and there is no sign of outbreak of epidemic diseases. He noted, however, that the greatest

danger now is the possible spreading of gastric and intestinal infectious diseases. In flood-stricken areas, special attention must be paid to cases of diarrhea, vomiting, and fever. If such cases occur, diagnoses must be made promptly. Attention should also be paid to the prevention of some infectious diseases spread by worms. Effective preventive measures should be taken to prevent epidemic hemorrhagic fever [liu xing xing chu xue re 3177 5887 1840 0427 5877 3583], leptospirosis, malaria, and encephalitis B, which can easily occur and spread in flood-stricken areas.

Talking about the sterilization of drinking water and disinfection of the environment, Professor Dai asserted: We must conscientiously implement a principle, namely, "sterilization and sanitation should be carried out and the pest control operation should be launched as far as the flood recedes." Flooded residential areas and public places must undergo particularly large-scale disinfection. Public health organizations, in cooperation with other organizations concerned, are now planning operations using mechanical methods or airplanes to spray disinfectant.

Professor Dai said: As soon as the flood recedes, one must never overlook epidemic prevention for the sake of cleaning the environment and resuming production. Since some epidemic diseases allow an incubation period, the possibility of outbreak of epidemic in August and September must not be underestimated.

### Red Cross Reports Death Toll, Situation in Flood Areas

*HK0208131691 Beijing ZHONGGUO XINWEN SHE  
in Chinese 0926 GMT 2 Aug 91*

[Report: "Death Toll in East-China's Flood Disaster Reaches 2,078"—ZHONGGUO XINWEN SHE headline]

[Text] Beijing, 2 Aug (ZHONGGUO XINWEN SHE)—A spokesman of the Chinese Red Cross Society said today that according to the latest figures, the death toll in east China's flood disaster has reached 2,078.

A report of the Jiangsu Red Cross Society said that great difficulties remain in the flood-stricken areas. Of the more than 4 million flood victims who need to be settled immediately, more than 2 million are still waiting for arrangements. Due to the lack of communications and transportation, it is still very difficult for many villages which have been surrounded by water for a long time to obtain relief materials. Water sources in flood-stricken areas have been seriously polluted. In addition, due to the hot weather in summer, the tasks for disease prevention and treatment are very arduous.

Sun Baiqiu, vice president of Chinese Red Cross Society, who has just returned from the flooded areas, pointed out that a pressing matter now is to enable the people in flooded areas to have clean drinking water. For this reason, a large quantity of water purification devices and

bleaching powder and a large quantity of disinfectants and sprayers are urgently needed. It is necessary to seek more underground water sources at the same time. She said: The flooded areas are badly in need of ambulances, and the medical equipment and instruments in the destroyed hospitals and clinics need to be replenished immediately. It is also necessary to purchase medicines and devices as soon as possible in order to eliminate epidemic diseases and improve the disease-prevention environment of the flooded areas. Flood victims' medical problems should also be solved promptly.

It was reported that more than 18,400 Red Cross medical teams have been sent to the flood-stricken areas in Jiangsu, Anhui, Hebei, Henan, Zhejiang, Hunan, Guizhou, and Sichuan, and more than 2.24 million people have been saved.

#### **Epidemic Conditions in Henan Flood-Stricken Areas Noted**

HK0408051491 Hong Kong ZHONGGUO TONGXUN SHE in Chinese 0736 GMT 3 Aug 91

[Report by special reporter Chao Yuan-kuang (6392 6678 0342): "Some 10 Percent of Flood Victims in Henan Have Fallen Ill"—ZHONGGUO TONGXUN SHE headline]

[Text] Zhengzhou, 3 Aug (ZHONGGUO TONGXUN SHE)—Some 10 percent of the residents in the heavily flooded and waterlogged areas in Xinyang and Zhumadian, Henan Province, have fallen ill, mainly suffering from high fever, influenza, malaria, and enteritis. At present, epidemic conditions in the flood-stricken areas have been brought under control, and there is no widespread epidemic in the province.

A person-in-charge of the Henan provincial public health department told this reporter: During the initial period of the flood, many servicemen and civilians who had braved heavy rain to fight the flood contracted influenza, high fever, and other diseases. As water sources in the flood-stricken areas were polluted and mosquitoes later multiplied in waterlogged areas, a large number of residents and people engaged in the flood-combating operation were infected with infectious intestinal diseases and other diseases that spread through worms. Thus, 12 large hospitals in Henan Province promptly sent 12 medical teams to 12 counties in Xinyang and Zhumadian prefectures to assist local medical workers and military surgeon teams in disease prevention and treatment. Meanwhile, a medical team from the State Science and Technology Commission, bringing along a batch of much-needed medicines with them, arrived on 25 July in areas seriously stricken by flood in Henan Province to render medical service to local people.

The person-in-charge said: At present, the epidemic condition is under control, the incidence of diseases has

dropped remarkably, and there is no widespread epidemic in the province. However, he estimated that some 10 percent of people in these areas seriously stricken by the flood have fallen ill.

To ensure that no epidemic will prevail after the flood, the provincial public health department is going to send more medical teams to the flood-stricken areas, will keep an eye on the epidemic condition all the time, and is ready to take prompt measures to bring the situation under control if necessary. For the moment, the focus is placed on the disinfection of drinking water, the supply of clean and safe drinking water, and the conveyance of knowledge on hygiene and disease prevention in the flood-stricken areas, the person-in-charge of the provincial public health department added.

#### **Study on Periodically Prevalent Feature for Epidemic Cerebrospinal Meningitis in China**

54004808B Beijing ZHONGHUA LIUXINGBINGXUE ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY] in Chinese Vol 12 No 3 June 91 pp 136-139

[Article by Hun Xujing [5170 4872 2417], Li Xinwu [2621 2450 2976], et. al., Institute of Epidemiology and Microbiology, Chinese Academy of Preventive Medicine, Beijing. Words in italics as published.]

[Abstract] A study on periodically prevalent feature for epidemic cerebrospinal meningitis (ECM) in China was carried out by means of cluster analysis of multilocus enzyme electrophoresis, as well as chromosomal DNA fingerprinting and subserotyping of outer membrane protein class 1 of *Neisseria meningitidis* group A. Two hundred strains tested were isolated from the patients for ECM and carriers during the 1980s to 1990s in 17 provinces and municipalities. Overall analysis on the bacterial types of the strains above mentioned and data of morbidity of this disease for recent 40 years was undertaken. The research results indicated that ECM really possessed the feature of cyclic prevalence in China, the cyclic epidemics were caused by the different predominant types of *Neisseria meningitidis* group A and the strains of predominant types could be periodically spread. Every epidemic was basically spread from the north to the south of China. However, the patterns of cyclic epidemic of this disease were not uniform in the country. The above study has established the preliminary base to reveal the prevalent mechanism for ECM by use of molecular biological methods in China.

#### **A Dynamic Change of Serotypes of HFRS (Hemorrhagic Fever Renal Syndrome) Patients in Mixed Epidemic Area**

54004808C Beijing ZHONGHUA LIUXINGBINGXUE ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY] in Chinese Vol 12 No 3 June 91 pp 140-143

[Article by He Jiang [0149 3068], Zhou Guolin [0719 0948 2651], et al.]

[Abstract] In this paper, we have used HI (hemagglutination) assay in an observation of the dynamic changes of

serotype of EHF patients in a mixed epidemic area in Shaoxing, Zhejiang province. The results showed that serotypes of EHF (epidemic hemorrhagic fever) patients were strongly correlated with different endemic areas and had obvious seasonal fluctuation in the incidence of the disease. This further demonstrates the difference between the two serotypes (Apodemus type and Rattus type) in different geographic areas.

#### **Geographic Distribution of Lyme Disease in Mudanjiang**

54004808C Beijing ZHONGHUA LIUXINGBINGXUE ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY] in Chinese Vol 12 No 3 June 91 pp 154-157

[Article by Zhang Zhefu [1728 0772 1133], Wan Kanglin [8001 1660 2651] et al., Institute of Epidemiology and Microbiology, Chinese Academy of Preventive Medicine]

[Abstract] Four forestry plants in Mudanjiang with different geographic characteristics were investigated in 1989 and 2,178 people were inquired and examined. Seventy-four cases including 54 of ECM (erythema chronicum migrans), 12 of nervous system disorder and 8 of arthritis were confirmed as Lyme disease. There were some patients at other places of forest areas of Mudanjiang. The prevalence rate of Lyme disease ranged from 1 percent to 4.5 percent at four plants with higher rate in mountainous area than in hilly land.

It is first reported that one strain of Lyme disease spirochetes was isolated from a patient with psychiatric derangement.

It proved that *Ixodes persulcatus* plays the leading role in transmission of Lyme disease spirochetes, as the growth curve of *Ixodes persulcatus* is coincident with that of the patient with ECM.

#### **New Method for Testing Hepatitis Developed**

OW2207104891 Beijing XINHUA in English 0701 GMT 22 Jul 91

[Text] Beijing, July 22 (XINHUA)—Chinese medical workers have developed a new method for testing hepatitis c virus, which requires only a tiny amount of serum and get quick results.

The method was developed by the hepatitis research institute of the Beijing Medical University.

According to researchers, hepatitis is transmitted mainly by blood transfusion or by using blood products and there were only a few countries in the world capable of producing virus testing kits.

The method was developed on the basis of the completion of a clone and its sequence analysis of the gene of hepatitis c virus and the building of the method of an enzyme linked immunosorbent assay (elisa) for testing hepatitis c antibody.

## CAMBODIA

### Increased Number of Malaria, Cholera Cases

*BK0808073691 Phnom Penh SPK in English  
0413 GMT 8 Aug 91*

[Text] Phnom Penh SPK August 8—More than 15,500 people suffered from cholera and malaria in Kratie Province, about 200 km northeast of Phnom Penh, in the first six months of this year.

According to Dr. Sun Sieng, chief of the provincial health service, the number of cholera-affected people was about 8,720 and that of malaria-sufferers was approximately 6,870.

Dr. Sun Sieng said the number of malaria sufferers usually increased during the rainy season in the province which is mostly covered with woodland.

To cope with such a situation the health service gave medical check-ups to 60,245 people and hospitalized 1,101 patients. So far, 843 patients have been cured.

Besides, the mother and child care ward vaccinated 4,669 children against six major diseases, gave gynaecological and pre-natal checks to 996 and 1,409 women respectively and delivered 499 babies.

Recently, the Public Health Ministry sent three more doctors to work in the province.

### Eighty-one Die of Malaria, Cholera in Kompong Thom Province

*BK0908061091 Phnom Penh SPK in English  
0444 GMT 9 Aug 91*

[Text] Phnom Penh SPK August 9—Eighty-one people died from cholera and malaria in Kompong Thom Province in April this year.

According to the chief of the provincial health service, Mr. Euv Dot Chhin, the number of cholera sufferers rose to 577, of whom 77 died in April alone.

Besides, Mr. Chhin said, malaria had also spread to some other areas, affecting more than 300 persons and killing four of them.

In June, there were 128 malaria suspects, he said.

## SOUTH KOREA

### Government Issues Alert Against Encephalitis

*SK0208030191 Seoul THE KOREA HERALD  
in English 2 Aug 91 p 3*

[Text] The Ministry of Health and Social Affairs yesterday issued an alert against Japanese encephalitis.

A ministry spokesman said that the alert followed the infection of a 58-year-old man in Seoul with Japanese encephalitis.

The ministry instructed local health officials to conduct a thorough disinfection of animal pens, ponds and other places where the pests are likely to breed.

The ministry also advised children aged 3 to 15 and senior citizens to receive vaccination against the disease and be careful not to be bitten by mosquitoes. The culex mosquitoes are known as the main virus carriers of the summer disease.

### First Hemorrhagic Fever Fatality of 1991 Occurs

*SK0508094591 Seoul YONHAP in English 0853 GMT  
5 Aug 91*

[Text] Seoul, Aug 5 (YONHAP)—A 55-year-old man living in Inchon died of hemorrhagic fever, becoming the first victim of the epidemic this year, the Health and Social Affairs Ministry said Monday.

Eleven people have contracted the infectious disease, which is acquired by inhaling viruses released into the air from rat droppings.

The fatality, identified only as Kim, was hospitalized with a high fever accompanied by leg and arm ache, and after a serum test he was declared a victim of hemorrhagic fever, the Ministry said.

It advised everyone to cover all exposed skin during outdoor activities, not to put clothes or bedding on the lawn to dry and to shower immediately on returning home.

### Cholera Germs Found on Korean Air Plane

*SK1008020791 Seoul THE KOREA HERALD  
in English 10 Aug 91 p 3*

[Text] Cholera Germs have been found in the toilet of a Korean Air plane which arrived in Seoul Tuesday from Singapore via Bangkok, according to the Ministry of Health and Social Affairs yesterday.

A ministry spokesman said that the ministry immediately began to trace 261 passengers and crew members who came to Seoul aboard flight KE 632 to locate the germ carrier.

But the ministry did not issue a cholera alert.

### Government Acts To Control Cholera Incidences

*SK1408084691 Seoul YONHAP in English 0737 GMT  
14 Aug 91*

[Text] Seoul, Aug. 14 (YONHAP)—A cholera epidemic reported in Sochon, a town on the central western coast, is feared to deal an extensive blow to the local food and beverage, livestock and tourism industries.

Consumption of pork, raw fish and sea shells dropped considerably and exports of agricultural, livestock and fisheries items are certain to slow down should

importing countries strengthen customs inspection and quarantines on Korean products.

More than 50 people contracted the epidemic disease after eating pork and raw stingray at a funeral in Sochon, south Chungchong Province.

The government banned the sale of raw fish and cold noodles at 400 restaurants in Sochon and neighboring towns and instructed restaurants in Okku where fifty people showed symptoms similar to those of cholera not to sell raw fish and sea shells.

In Seoul's two wholesale fish markets, sales of fish dropped by 30 to 40 percent on Tuesday night and Wednesday morning and fish prices dropped by 20-30 percent.

The tourist agencies and hoteliers are worried that the epidemic would decisively dampen seasonal tourism boom in August and September.

The tourism industry has expected 280,000 foreign tourists to visit Korea in August.

Meanwhile, Health and Social Affairs Minister An Pilchun said Wednesday that the residents in Okku who are suffering from food poisoning were not cases of cholera. He said that there are 54 Cholera patients as of Wednesday.

### **South Cholera Spread Blamed on 'Authorities' Failure'**

*SK2108110291 Pyongyang KCNA in English  
1010 GMT 21 Aug 91*

[Text] Pyongyang August 21 (KCNA)—Cholera now prevalent in many countries of the world is rapidly spreading throughout South Korea, a Seoul-based radio reported.

According to data released by the "Ministry of Health and Social Affairs," seventynine and eight cholera cases had been reported respectively from Sochon and Poyong Counties, south Chungchong Province as of August 14, and this communicable disease is uncontrollably spreading to Seoul, Pusan, Kunsan, Taejon and other areas.

Earlier, 16 cholera cases were already reported from Okgu, north Cholla Province. The spread of this disease is attributable to the health authorities' failure to take any prevention measures.

The hospitals in Seoul, Pusan and other cities are now busy taking phone calls from inhabitants who are complaining about symptoms of cholera. The quarantine office of Kimpo airport reportedly entered a "round-the-clock emergency quarantine system".

### **Ministry Finds Legionella Bacteria in Seoul Buildings**

*SK1108022491 Seoul THE KOREA TIMES in English  
11 Aug 91 p 3*

[Text] Legionella pneumophila, a bacterium causing a serious and sometimes fatal respiratory disease, has been found in water circulating in the cooling towers at deluxe hotels, general hospitals and office buildings in Seoul, the Health-Social Affairs Ministry said yesterday.

The ministry said that it recently sampled water from cooling towers at 85 large buildings in Seoul and found that water from 46 buildings (54.1 percent) contain germs causing "Legionnaire's disease" and a febrile disease called "Pontiac Fever."

The buildings include Hyatt Regency Seoul Hotel, Seoul Hilton, New World Hotel, Savoy Hotel, Astoria Hotel, Yongdong Hotel, Prima Hotel, Sofitel Ambassador, KAL Building, Kyobo Building Kangnam Express Bus Terminal, Cosmos Department Store, Asiana Airlines Building, Yongdong Severance Hospital and Koryo Hospital.

According to the ministry, the Legionella bacteria live in swamps and air conditioner cooling water.

The disease spreads by dust or fog containing the bacteria through respiratory organs and is accompanied by high fever, chills and muscle aches, and, in severe cases, by respiratory collapse and death.

The latent period of the Legionnaire's disease is 2-10 days and the death rate is as high as 15 percent, while Pontiac fever breaks out after a 5-66 hours latent period, the ministry said. Pontiac fever is not accompanied by other serious diseases such as pneumonia.

Legionnaire's disease derives its name from the fact that the first recognized outbreak of the disease occurred in individuals who had attended an American Legion convention in Philadelphia in July 1976.

During the outbreak, which lasted for several weeks, 182 people became ill and 29 died. After months of intensive study, the cause was identified as a rod-shaped bacterium which was given the scientific name Legionella pneumophila.

The outbreak of Pontiac fever, also caused by the bacteria, was first reported at an emergency care unit of Koryo Hospital, downtown Seoul. At that time, some 50 patients, their family members and medical staff were infatced.

Health authorities and the hospital launched an investigation and found that the "unknown" epidemic was caused by Legionella germs from the cooling water in the hospital's air conditioner.



Meanwhile, the ministry ordered city and provincial administrations to beef up sanitary checks on buildings to make sure that they conduct chlorination of cooling waters regularly.

The ministry also advised housewives and shop owners to clean filters and air conditioner drains at least once a week.

## LAOS

### Malaria Spreading in Sekong Province

*BK2108093091 Vientiane Vitthayou Hengsat Radio Network in Lao 1200 GMT 18 Aug 91*

[Text] Since July the anti-malaria service of Sekong Provincial Hospital discovered that 67.9 percent of its inpatients were infected with malaria. The rate of infection is rather high and at a dangerous level with a number of fatalities reported. Malaria can spread quickly but is curable. Without proper treatment, patients can die in a short time. Medical cadres are encouraging the people in Sekong Province to keep a clean environment and to practice the rules of hygiene.

### Dengue Fever Breaks Out in Bolikhamsai Province

*BK0108134091 Vientiane KPL in English 0921 GMT 1 Aug 91*

[Text] Vientiane, August 1 (KPL)—During June and July, dengue fever broke out in Paksan, the provincial capital of Bolikhamsai.

In this connection, the Malaria station under the provincial public health service dispatched 25 personnel to launch anti-aedes spraying campaign serving 1,389 houses. Along with this, another team of medical personnel was dispatched to conduct blood test in Bolikhamsai District. The result of the blood test showed that 15 percent of the 363 tested cases were affected by Malaria at Hatpho village and 21 percent of the 249 cases at Phonkham village. The personnel also distributed to the people anti-dengue fever medicines and instructed them how to take preventive measures.

Another report from Bolikhamsai noted that the provincial malaria centre set up an experimental point at Hatpho village for the eradication of the dengue-fever carrier mosquito.

### Dengue Fever Might Spread in Savannakhet

*BK2208074891 Vientiane Vitthayou Hengsat Radio Network in Lao 0500 GMT 22 Aug 91*

[Text] Dengue fever might spread extensively in Savannakhet Province during the current rainy season. So far, the provincial hospital of Savannakhet has admitted 10 children for treatment of the disease. Dengue fever spread in the province in 1981, causing a number of

fatalities. The public health service and the administration in the area are planning to mobilize the people to make preparations to prevent and control the disease.

## MALAYSIA

### Health Ministry Official Warns Against Dengue Outbreak

*BK0208100391 Kuala Lumpur NEW STRAITS TIMES in English 1 Aug 91 p 2*

[Article by Faridah Begum]

[Text] Kuala Lumpur, Wed—The dengue outbreak is rapidly assuming epidemic proportions with 23 deaths reported during the first seven months of this year, exceeding the 21 cases reported for 1990.

This alarming increase in dengue and dengue haemorrhagic fever cases has put the Health Ministry on the alert.

The Health Ministry's vector-borne diseases control programme director, Dr. Lim Ewe Seng, said the rising statistics have led the ministry to fear that a dengue epidemic was imminent if steps were not taken immediately to control the outbreak.

In an interview today, Dr. Lim said the rise in cases was largely due to public apathy. "They know how dangerous the disease can be, but they are hardly doing anything to prevent it," he said.

To date, 3,745 dengue fever cases have been reported for the first seven months of the year, including 344 haemorrhagic cases, and 23 deaths.

For the whole of last year, there were 4,880 reported cases and 21 deaths.

The statistics show that a marked increase in dengue fever cases was seen in 1986 when there were 1,408 cases.

The following year, there was a 44 percent increase to 2,225 cases. This fell to 1,428 cases in 1988.

But there was an 80 percent jump in 1989 to 2,564 cases.

In the January-July period, the percentage increase was 95 percent over the previous corresponding period.

In the first seven months, Johor reported the highest number of cases (835 and three deaths), while the Federal Territory of Kuala Lumpur, with 824 reported cases, had the highest death toll of seven.

Other deaths, all attributed to dengue haemorrhagic fever, occurred in Selangor (four), Sarawak (four), Perak (three) Perlis (one) and Sabah (one).

Dr. Lim said of the 1,683,697 houses inspected until May this year, 552,701 were fumigated and 16,008 were found to harbour aedes mosquitoes.

Up to May this year, the ministry prosecuted 54 people for failing to heed repeated warnings to clean their compounds while 7,363 homeowners were fined a total of [Malaysian Ringgit] \$14,980.

Dr. Lim reminded the public that they had as much of a duty as the ministry to help control the spread of dangerous diseases.

During the extended dry spell this year, homeowners who stored water in containers failed to take adequate precautions to prevent the breeding of the aedes mosquitoes which cause the fever.

Dr. Lim said ignorant homeowners also kept their doors and windows closed during fumigation exercises, which helped aedes larvae breed.

Despite numerous yearlong campaigns, many homeowners continued to adopt an uncaring attitude towards the dangers of dengue.

He urged homeowners to keep their compounds clear of paraphernalia which could trap and contain water and to constantly change the water in their storage containers to curb the breeding of the aedes larvae.

"The increase in the number of cases is due to public apathy. They know how the disease spreads but hardly do anything to prevent it," he said.

The aedes mosquitoes breed in clear and undisturbed water and not in dirty, polluted and running water.

Dr. Lim said the aedes larvae needed only a week to hatch and, contrary to popular belief, required very little water to breed.

The mosquito carries the virus immediately after hatching and takes only about five to six blood meals in its lifespan of 30 days.

### **Dengue Epidemic Strikes in Pahang State**

*BK2208142091 Kuala Lumpur Radio Malaysia Network in English 1330 GMT 22 Aug 91*

[Text] Pahang is being hit by a dengue epidemic with 181 cases, including five dengue hemorrhaged fever, DHF, cases this year. Fifty one cases were reported during the corresponding period last year.

Acting Pahang Health Director Dr. Narandjan Singh said this in Kuantan today. He said the problem was growing acute as the number of dengue fever patients grew sharply from 130 at the end of July to 181 yesterday.

## **PHILIPPINES**

### **Increase in Intestinal Diseases in Mindanao**

*91WE0479 Cotabato City MINDANAO CROSS in English 3 Jul 91 pp 1, 9*

[Article by R. M. Tendero, Jr.: "Gastro Cases up in City"]

[Text] Local health authorities yesterday said diarrhea and gastro-enteritis have climbed up the morbidity chart as two of the leading cases of intestinal-tract diseases following the onset of the rainy season.

City health officials said 90 cases of diarrhea have been recorded from 1 to 15 June, indicating a higher rate of incidence over the last half of May.

A medical bulletin issued by the city health department from 16 to 22 June also showed the same trend which city health officials said may still go up if not immediately remedied.

City health officer Dr. Zacarias Pabiona attributed the incidence of these diseases to polluted water. "The intake of bacteria-carrying water usually results in diarrhea and other intestinal diseases."

He said bad-eating habits and poor environmental sanitation also lead diarrhea to gastro-enteritis, an advanced state which may cause death if not immediately given medical attention.

Pabiona disclosed that most people afflicted by gastro-enteritis reside in slum communities where basic facilities are absent. Many of these people, he said, use water from rivers and creeks for their washing and drinking requirements.

Typhoid fever, one of the ailments being monitored by health officials showed an upscale trend the past weeks prompting authorities to conduct roving check-ups in disease-prone communities.

Pabiona said medical teams are now monitoring the incidence of dengue fever which have reportedly afflicted both minors and adults. Nineteen dengue fever cases have been recorded by local hospitals from 1 to 11 June signalling alarm that an upward trend may be in the offing.

The Social Development Task Force of the city government, meanwhile, has already reported two deaths caused by dengue fever complications, he said.

The task force's monitoring teams feared that the situation may reach a critical stage "if authorities do not act on the cases immediately."

Members of the monitoring teams said the communities surrounding the Cotabato City Institute are most susceptible to suffer from dengue fever noting that residents in these places are close to the breeding spots of mosquitoes that carry the dengue virus.

The paramedics said many people take dengue symptoms for granted. It is only when internal bleeding occurs that patients are brought to the hospital for treatment, thinking recurring fever is nothing but influenza, they said.

Pabiona said the dengue virus is transmitted by mosquitoes which bite at daytime. Called *aedes aegypti*, this kind of mosquitoes breed in clear waters contained in bottles, tires, cans and coconut husks and usually thrive during the rainy season.

He said destruction of the species' breeding places is one measure people may undertake using chemical sprays. "But the most effective way is keeping the surroundings clean."

Assistant city health officer Dr. May Dolores Manara said infections caused by the dengue virus may be benign and usually carry severe to serious prognosis.

## THAILAND

### Increased Risk of Cholera Seen

*91WE0363A Bangkok MATICHON in Thai 25 Apr 91 pp 1, 22*

[Excerpt] [passage omitted] On 24 April, Dr. Pramuk Chanthawimon, the deputy undersecretary of public health, issued a statement on the cholera situation. He said that the number of cholera cases is up this year because of the drought. From January to 9 April, a total of 90,310 cases have been reported. The largest number of cases are in the provinces that are communications centers, coastal provinces, and provinces that lack water. Thus, the people living in these provinces should be very careful. [passage omitted]

### Health Officials Discuss Drop in Cholera Cases

*91WE0363B Bangkok MATICHON in Thai 26 Apr 91 p 22*

[Excerpts] [passage omitted] On 25 April at the Ministry of Public Health, Dr. Thira Rammasut, the director-general of the Department of Communicable Disease Control, issued a statement about the number of cholera cases. He said that during the period January to March 1991, about 153,000 cases of cholera were reported. Of these, 43 people died. This can be compared to the same period in 1990, when 224,000 cases and 115 deaths were reported. That is twice the number reported this year. In particular, at the beginning of 1990, the World Health Organization took Thailand off the list of countries with cholera epidemics.

The director-general of the Department of Communicable Disease Control said that there are no cholera epidemics in Thailand at the present time. The only places where there have been outbreaks of cholera are border provinces such as Tak, Kanchanaburi, Prachinburi, and Trat and certain areas of Chiang Mai Province.

There have been outbreaks among the refugee groups in these places. This is because the Cambodian, Karen, and Mon groups are involved in wars and frequently have to move about. They do not give much attention to hygiene. When people suddenly come down with diarrhea, the disease spreads through the environment. The symptoms of this disease are easy to spot. People have severe cases of diarrhea. The stool is watery and white colored. Children who contract this disease become very restless and then listless because of losing so much water. They may die.

Dr. Thira also talked about cholera epidemics abroad. He said that in Peru, Brazil, Bangladesh, and India, officials have agreed to report outbreaks and epidemics. If people want to enter Thailand, immigration officials will question people. In any event, the airlines usually question people first.

Dr. Prayun Kunason, the deputy director-general of the Department of Communicable Disease Control, said that the World Health Organization considers cholera to be a communicable disease that calls for quarantining people. This is on the list of dangerous diseases, which includes plague, yellow fever, and smallpox. The WHO is afraid that these diseases will be spread from one country to another and so it has called for the use of vaccination certificates. But recent studies have shown that in the case of cholera, this method is not a real control method. The way to control this disease is to keep the drinking water and bathrooms clean and to eat food that is free of the virus. In Thailand, the Department of Communicable Disease Control has implemented a cholera control program. As a result, the number of deaths has declined. [passage omitted]

A report from the Government House said that during the time of the Chatchai administration, a former undersecretary of public health proposed banning the use of the word "cholera," because that could affect tourism in Thailand. That could have economic and social effects, particularly in exporting food products. He proposed using the term "severe diarrhea" instead.

### Yaws Spreads in South

*91WE0363C Bangkok SIAM RAT in Thai 24 Apr 91 p 5*

[Excerpt] [passage omitted] A report stated that since the beginning of 1991, there have been outbreaks of yaws in Pattani Province. Statistics of the Pattani provincial Public Health Office show that there have been 248 cases of yaws. Prior to this, there had not been any cases of yaws for a long time. But recently, there have been outbreaks in several southern provinces. It's thought that this is being brought in by fishermen who fish in the joint development zone, where there have been outbreaks of this disease. The fishermen contract the disease and spread it at home without knowing it.

Dr. Traiwit Temhiwong, the public health officer in Yala Province, said that there have in fact been outbreaks of

this disease. But it is not difficult to treat this disease. It takes about three to seven days to cure the disease. Symptoms include itching and foul-smelling lesions. If the person is treated immediately, he can be cured quickly.

### TONGA

#### **Fifteen Percent of Population Carries Hepatitis B Virus**

*BK1308054491 Melbourne Radio Australia in English  
0500 GMT 13 Aug 91*

[Text] About 15 percent of Tonga's 95,000 people are believed to be carriers of the hepatitis B virus which

causes inflammation of the liver and is often fatal. Dr. Taniela Latoui at the Veruna Hospital in Nuku'alofa says this is a high rate, and he stressed the importance of regular medical checks of pregnant mothers to ensure the hepatitis virus is controlled at an early stage.

Most Pacific islands have the hepatitis B virus.

Dr. Latoui said the World Health Organization and the New Zealand Government are organizing a workshop for Pacific island health workers to discuss combatting the problem in the region.

**BULGARIA**

**Turkey, Greece Ban Live Animal, Meat Imports  
From Bulgaria**

*AU1008194591 Sofia DUMA in Bulgarian 7 Aug 91 p 1*

["DUMA PRESS" report]

[Text] The Ministry of Foreign Economic Relations has received a telex from the Bulgarian Trade Representation in Athens that Greece has prohibited the import of

live animals, fresh and frozen meat, and animal feed from Bulgaria, because of the discovery of epidemic disease.

On 5 August Bulgarian Television announced that the Turkish Government recently adopted a similar decision.

The outbreak of foot-and-mouth disease has affected 99 spring lambs, 400 sheep, and two bulls in the village of Stefan Karadzovo, Yambol district, according to a report in the 6 August issue of the "ZEMYA" newspaper. According to the report, the Veterinary State Trust has taken the necessary measures to contain the infection.

**ARGENTINA****Measles Epidemic in Santiago del Estero**

*PY1308123091 Buenos Aires TELAM in Spanish  
1640 GMT 12 Aug 91*

[Summary] Santiago del Estero, 12 Aug (TELAM)—The local branch of the Argentine Pediatrics Society has reported 1,500 cases of measles in the province and urged the implementation of health measures in view of the approaching spring during which the epidemic is likely to get worse.

**BRAZIL****Health Ministers Sign Accord on Fighting Cholera**

*PY2707215091 Madrid EFE in Spanish 2228 GMT  
23 Jul 91*

[Text] Brasilia, 23 Jul (EFE)—Official sources have reported that Brazilian Health Minister Alcení Guerra and his Peruvian counterpart, Victor Yamamoto, signed in Brasilia today a cooperation agreement on fighting the cholera epidemic, particularly in the Amazon Region.

Guerra and Yamamoto discussed progress made against the disease through joint programs that they have been implementing since May. These programs have largely benefited Peruvian Amazon townships, on the border with Brazil.

The cooperation agreement expands the additional protocol signed in May as an annex to the bilateral health agreement that has been in force since 1965, which only made a generic reference to epidemics without singling out cholera; at that time cholera did not affect either country.

The two ministers agreed on implementing joint measures to monitor the epidemic and to promote sanitation, the exchange of technical information, and educational and training programs in the health area.

Brazil will give Peru 1.6 million cruzeiros (\$477,600) in aid for the installation of a specialized laboratory and for improvement of the water supply and sewage systems in Amazon townships.

A sanitation office, a latrine factory, and 17 checkpoints for Peruvian boats entering Brazil through rivers in the Amazon hinterland will be established.

There have been 220,000 cases of cholera in Peru, and 2,200 people have died. Only 23 people have been infected in Brazil, and no one has died of it. All of the Brazilian cases have occurred in the Amazon region.

Yamamoto will return to Lima tonight at the end of a 48-hour visit to Brasilia.

**First Cholera Case Reported in Sao Paulo State**

*PY0408212691 Sao Paulo O ESTADO DE SAO  
PAULO in Portuguese 2 Aug 91 p 1*

[Text] On 1 August, the Health Secretariat announced that the first cholera case has been confirmed in Sao Paulo. The patient infected with cholera is a 35-year-old foreign citizen who lives in downtown Sao Paulo. He apparently was contaminated in Ecuador, from where he returned to Brazil on 29 July. On 31 July, he was admitted to Emilio Ribas Hospital with symptoms of the disease. Otavio Azevedo Mercadante, who is in charge of fighting the disease in Sao Paulo State, has said there is no risk to other people. He said: "The patient infected with cholera lives in an area where there is a sewage system."

**Number of Cholera Cases Rises to 32 Nationwide**

*PY1208013491 Sao Paulo O ESTADO DE SAO  
PAULO in Portuguese 3 Aug 91 p 11*

[Excerpt] [passage omitted] Baldur Schubert, chairman of the Health Ministry's National Commission for Cholera Prevention, has stated in Brasilia that confirmation of the first cholera case in Sao Paulo proves the effectiveness of our health watch system.

Schubert voiced concern about the situation in the Upper Solimoes (Amazonas State) region; seven more cholera cases were reported yesterday in Tabatinga, Benjamin Constant, and Atalaia do Norte, thus bringing to 32 the total number of cases nationwide. Schubert left for Tabatinga with 10 epidemiologists to attempt to locate the source of cholera contamination.

**First Fatal Cholera Case Confirmed**

*PY1408015891 Brasilia Voz do Brasil Network  
in Portuguese 2200 GMT 13 Aug 91*

[Summary] The Health Ministry today confirmed the first death caused by cholera in the country. An 11-year-old girl, identified by the initials A.M.S., died from cholera on 8 August in Sao Paulo de Olivenca in the Amazon. Thus far, the Health Ministry has confirmed 40 cholera cases in the Alto Solimoes region and one case in Sao Paulo.

**Ministry Concerned About Increase in Cholera Cases**

*PY2208003291 Brasilia Voz do Brasil Network  
in Portuguese 2200 GMT 21 Aug 91*

[Text] The Health Ministry is concerned about an increase in cholera cases in the upper Solimoes River region. The Health Ministry today confirmed 59 new cases of cholera in the upper Solimoes River region.

According to Baudu Subeste, hygiene control secretary, the large number of cholera cases in that region is due to low rainfall and resulting low water levels. He added that this situation will probably worsen during September.

Moreover, in the past few months this disease has spread to Iquitos, neighboring Tabatinga on the border with Peru; 15,000 cases of cholera have been detected in Loreto Department of Peru alone.

Next week, 55 Health Ministry experts—including doctors, nurses, epidemiologists, and health educators—will visit the towns of Tabatinga, Amatura, Atalaia, Benjamin Constant, Santo Antonio do Ica, Sao Paulo de Olivenca, and Tonantins to fight cholera.

In the first week of September, three hospital ships will drop anchor in the Solimoes River, near Tabatinga, in order to treat patients from the middle and upper Solimoes River regions.

### Malaria Cases Concentrated in 30 Cities

91WE0464A Brasilia CORREIO BRASILIENSE  
in Portuguese 4 Jul 91 p 9

[Article by Carlos Alberto Silva]

[Text] More than 99 percent of all malaria cases in Brazil occur in Amazonia, and almost 70 percent in only 30 communities in the region. Exactly 67.22 percent of the 560,143 cases recorded throughout the country last year, 376,549, occurred in those cities, the national champions of malaria. Ariquemes and Porto Velho (Rondonia), together with Peixoto de Azevedo and Matupa (Mato Grosso) were responsible for almost 30 percent of all Brazil: 28.76 percent of the 161,043 total cases of malaria.

In statistical terms, malaria declined between 1989 (when there were 577,520 cases) and 1990 (which recorded 17,377 fewer cases). But it actually remained the same, in the view of Health Ministry Technical Administrator for Malaria Dilermano Fazito de Rezende. "The regional situation in the 30 municipalities is the same," he states. The only thing that has changed is the champion on the list: "The greatest incidence now is certainly in Peixoto de Azevedo." According to Dilermano, even the cases recorded outside Amazonia were mostly contracted there: "Malaria in Brazil is synonymous with malaria in Amazonia."

Which does not mean that there is malaria only in Amazonia. "Outside the region," explains Dilermano,

"ideal conditions exist for contracting the disease practically everywhere in the country, with the exception of Fernando de Noronha, Rio Grande do Sul, and the Federal District." But even within the exceptions there are risky areas: "In Planalta, a satellite city of Brasilia, and in five towns on the northern coast of Rio Grande do Sul—among them Torres." But excepting these areas of risk, malaria is practically impossible to contract. "There are mosquitos, and there are people to be bitten...but there is no parasite, which the Malaria Eradication Program has exterminated over the last 31 years."

With attention turned toward Amazonia, Brazilians in the large cities often are unaware that epidemics also occur even there, and are easily detected and eliminated by Dilermano and his team without anyone knowing it. "We had a reactivation in Taguatinga, here in the Federal District—but a month and a half after detecting it, we eradicated it. I also remember the one in Itaipu, which took us two years to fight; and another in Rio de Janeiro three months ago, which the press began to discuss."

### Action

Until the middle of this month, Dilermano, leading 3,000 officials from the program, fought an emergency campaign to turn back the disease's progress not only in those 30 cities but throughout Amazonia. They spent around 15 billion cruzeiros, including more than 3 billion to dredge, channel, and fill in the marshes where the larvae of the carrier mosquitoes live. The idea is to achieve the maximum by July 1992: "Reduce deaths and damages among the miners, reduce the disease by 30 to 70 percent in the stable communities of the rural areas—and eliminate malaria from the urban centers, which is a true threat to the country."

In the medium term, Dilermano and his assistant Jose Fiuza Lima are also striving to implement the true apple of the Division's eye, a project to be launched in September after more than a year of development, and with a final implementation deadline of July 1993: "It is a scientific research project to identify the determining factors of the chronic incidence of malaria in those 30 cities." Beginning in 1993, and at a cost of almost one billion cruzeiros, "we will stop fighting malaria with Scud missiles and begin to use Patriots," Dilermano promises.

The Disease Champions of Amazonia

Rank	City	State	# of Cases	% of Total*
1	Ariquemes	Rondonia	50,924	9.09
2	Porto Velho	Rondonia	44,285	7.91
3	Peixoto de Azevedo	Mato Grosso	36,327	6.49
4	Matupa	Mato Grosso	29,507	5.27
5	Itaituba	Para	22,609	4.04
6	Jaru	Rondonia	17,700	3.16
7	Terra Nova do Norte	Mato Grosso	16,214	2.89

8	Boa Vista	Roraima	15,002	2.68
9	Machadino d'Oeste	Rondonia	13,002	2.32
10	Ourlandia do Norte	Para	9,902	1.77
11	Guaranta do Norte	Mato Grosso	9,527	1.70
12	Alta Floresta	Mato Grosso	9,051	1.62
13	Costa Marques	Rondonia	8,611	1.54
14	Aripuana	Mato Grosso	7,212	1.29
15	Apiacas	Mato Grosso	7,135	1.27
16	Santarem	Para	7,025	1.25
17	Redencao	Para	6,980	1.25
18	Ouro Preto	Rondonia	6,453	1.15
19	Manaus	Amazonas	6,386	1.14
20	Maraba	Para	5,250	1.12
21	Rio Branco	Acre	5,453	0.97
22	Vila Nova do Mamore	Rondonia	5,096	0.90
23	Placido de Castro	Acre	5,064	0.90
24	Juina	Mato Grosso	4,962	0.89
25	Curionopolis	Para	4,932	0.88
26	Macapa	Amapa	4,769	0.85
27	Sta Maria das Barreiras	Para	4,471	0.80
28	Imperatriz	Maranhao	4,175	0.75
29	Mucajai	Roraima	3,956	0.71
30	Pontes e Lacerda	Mato Grosso	3,569	0.64
Subtotal			376,549	67.22
1990 Country-wide Total			560,143	100.00

Source: Sucam [Superintendency for Public Health Campaigns]/Malaria Division—Base: 1990

\* Compared to total cases country-wide

Note: In Amazonia, everything collaborates and conspires in favor of malaria. And the fact that the disease is concentrated in these 30 cities is easy to explain: There is malaria in all 462 cities in the region, but the incidence in these 30 is high because of the appearance and development of economic activities favoring the disease, such as mining and brush clearing for grazing or agriculture. Since the malaria mosquito is an insect of the jungle, accustomed to biting wild animals, it will also bite humans, and more easily because of their number and because of their physical characteristics. That facilitates transmission and makes the eradication of malaria difficult.

## CHILE

### Danger of New Cholera Outbreak

91WE0473A Santiago LA NACION in Spanish  
5 Jul 91 p 30

[Article by Leticia Soto]

[Text] The detection of cholera virus in irrigation water in the First, Seventh, and Metropolitan Regions indicates that Chile faces the risk of a new outbreak of the

disease, according to the Health Ministry, which also decided to keep epidemiological monitoring measures in effect until at least next April.

The Secretary of State will also exercise strict control of the crowds attending the La Tirana religious festival, which will be celebrated the 15th and 16th of this month in Iquique. Health Minister Dr. Jorge Jimenez announced yesterday that the influx of the faithful to the town of La Tirana would be restricted, and it was decided that contrary to previous years, activities would take place simultaneously in four towns in the Iquique interior.

### Presence of Cholera

The minister stated that the Public Health Institute had detected the presence of the cholera virus in an analysis of some 200 irrigation water samples from the Azapa, Yuta, Chacalluta, Mataquito, and Mapocho rivers. It was also found in the El Chinchorro water treatment plant in the north.

Recalling the negative effects of a cholera outbreak in the Israeli capital of Jerusalem in 1970, which originated on 30 farming hectares irrigated with treated water which



later contaminated the city's crops and caused the destruction of the tourist industry and industrial products, the Health Minister decided yesterday to keep existing preventive measures in place for the time being.

That means that people must continue to be religiously wary of consuming greens, fish, and shellfish, since in the view of Health Ministry Planning Chief Dr. Luis Martinez nothing could have as negative an effect on both the health of Chileans and the country's economy as an uncontrolled cholera epidemic.

Jimenez repeated that so long as the water treatment problem is not completely resolved in Chile, the country will have to remain extremely vigilant, which requires the support of the entire community.

Water treatment is indisputably a priority for the government, which has decided to confront the situation progressively through processes ranging from filtration to water sterilization, to purify crop irrigation water in the Santiago and Curacavi valleys to the maximum extent.

The minister believes that to do so, assistance must be provided to the farmers. To that end, the Agriculture Ministry is studying a strategy to substitute for risky crops in the most seriously affected zones.

## COLOMBIA

### **Cholera Outbreak In Choco Termed 'Alarming'**

91WE0470A Bogota *EL ESPECTADOR* in Spanish  
27 Jun 91 p 6A

[First paragraph is introduction]

[Text] The situation is alarming because some native religious sects oppose efforts to bring the disease under control. The epidemic has struck 46 Colombian towns; over 55 people have died, and 200 have been hospitalized.

Excluding data from indigenous communities living in remote places isolated from the main towns, as of yesterday the Choco health authorities had confirmed 24 deaths from cholera in the Choco department.

The situation in this Colombian Pacific coast department, the only one which had seemed to be untouched by cholera, has become alarming, with 24 deaths in less than one week; this exceeds the 16 deaths in Narino during more than four months of the cholera epidemic.

Colombia's cholera deaths have now exceeded 54.

The hardest hit areas are rural parts of Condoto, Sipi, and Alto Baudo. The situation is critical, especially in the southern part of the department; that is, in the upper part of the Baudo River and the lower San Juan area, on the borders of the Cauca Valley.

The director of epidemiology of Choco's Sectional Health Service, Julio Cesar Padilla, said yesterday that the region is now in a state of emergency because of the number of cholera cases that have been reported.

### **The Best Culture Medium**

"We know the numbers are increasing daily in an alarming way. It is very hard to reach places where there have been cholera outbreaks. We would need helicopters to do that, and we do not have them here. And these figures do not include data from remote native communities," said Padilla.

The biggest difficulties in preventing the disease from spreading and claiming more victims are related to economic, geographic, and religious factors, he said.

In announcing his trip to Bogota to seek resources from the minister of health, Camillo Gonzalez Posso, the doctor said 75 million pesos are needed as emergency aid to cope with the dangerous situation in areas like the Upper Baudo, whose small villages have to be reached by air. He also said that the Black Christ sect, which is active in some indigenous communities, opposes any type of medical treatment on religious grounds. This worsens the situation.

He denied reports that the disease has reached the Antioquia communities near the Choco border.

According to the latest Ministry of Health report released yesterday, there have been no deaths in Choco, and in the towns of Bahia Solano and Puerto Pizarroy Nuqui there were only 10 confirmed cases of cholera.

### **Disease Like a Mountain Range**

The statistical picture of cholera resembles a mountain range with very marked peaks and troughs. While in the coastal area of the Narino, Cauca, and Valle departments there has been a slight decrease—although with considerable peaks because of the large number of patients who come into medical clinics—in the Choco department the numbers continue to mount.

While the problem is worsening in Choco, in Narino the disease is showing signs of a tendency to decline, but still with some new and unexpected outbreaks.

"The situation is not at all under control in Tumaco, El Charco, Bocas de Zatinga, and Mosquera," said Oswaldo Coral, the health service's director of epidemiology, "for many cases have been reported in recent days. In all, 1,348 cases have been reported."

In the villages of El Charco along the coast and Barba-coas in the mountains, cholera has begun to decline, and in Cauca in general the number of persons infected with cholera is tending to diminish.

The number of probable cholera cases has surged steeply in Cali, where at the end of the week 65 persons had been treated, of whom only four tested positive.

Cholera is continuing its advance toward northern Colombia, while it seems to be stabilizing in the areas where it first entered Colombia several months ago.

### The Official Record

Cholera's tentacles continue to stretch throughout Colombia. Almost a third of Colombia's territory—seven departments and two commissariats have felt its presence.

The latest official report indicates that since cholera first entered Colombia along the Ecuadorean border four months ago, the epidemic has spread to 46 towns (34 of them on the Pacific coast), leaving 31 persons dead, 670 confirmed cases, 1,958 patients hospitalized, and 2,587 considered "probable" cholera cases.

In territorial terms, Cauca has had the largest share of victims with 16, followed by Narino with eight, Valle with six, and Huila with one.

Nevertheless, the region with the most confirmed and hospitalized cholera cases is Narino, followed in order by Valle, Cauca, Tolima, Choco, Huila, Amazonas, Guaviare, Cundinamarca, and Meta; the latter departments had one case.

In addition, the government has reported that to date there have been no in-hospital deaths; that is, all the patients who have died were en route to a medical center, but no one has died of cholera while in the hospital.

### Cholera Contained in Southern Pacific Coast

91WE0470B Bogota EL ESPECTADOR in Spanish  
3 Jul 91 p 7A

[First sentence is introduction]

[Text] The number of cholera patients has declined in response to prevention strategies.

Cholera has slowed down along the Southern Pacific Coast. The number of patients has declined significantly, while the temperature is rising as summer approaches.

Doctors do not know what to think. Some believe cholera is decreasing as a temporary reaction to the preventive measures taken in recent days along the coast, and others think that when people lower their guard, cholera may strike with renewed intensity.

Opinions are certainly divided. While this may be "the calm before the storm" which could strike the population next summer, it is also a fact that the rate of increase in cholera cases all along the coast in Narino, Cauca, and Valle has declined to almost its lowest level, with under three new patients per day.

In Choco, the health authorities have reported no more confirmed cases among the native communities.

In Guapi and its rural areas, after reports of up to 15 new patients a day, in the past week there have been only 12 cases.

Dr. Jorge Robledo of Saint Francis of Assisi Hospital commented: "This has been the lowest level of cases reported. Last Monday only one patient suspected of having cholera came in, while in previous days there were 12. All of them were treated immediately and released, as they were not in danger."

The doctors and health care personnel working in the area think a number of factors may be responsible for this. One of them, perhaps the major cause, is that people have taken prevention seriously.

"There is no better advertisement," said a hospital nurse, "than patients who have been cured. People ask them how they were infected and they all say they had ignored at least one of the recommendations. When they talk, other people start to follow all the steps. People have begun to make changes to play it safe. No one wants to get infected. At first they saw it as something that was not going to affect them, and now they weigh their actions and take care of themselves."

### Successful Brigade

Doctors, paramedics, and nurses have devoted great efforts to fighting this disease.

"There were days here in El Charco when up to 20 patients were coming in. This week the numbers are down somewhat, but we can still not be too confident," said Julio Cesar Campuzano, director of the hospital.

Last weekend a group of 100 doctors, specialists in Colombia's military hospitals, went to El Charco, Tumaco, and Barbacoas. They have undertaken an extensive medical treatment campaign for the people of the Pacific Coast region of Narino.

"Gynecologists and pediatricians have had the most work," said one of the military doctors, "because women and children seldom receive adequate medical care. We have had up to 50 patients a day. Dentists and ophthalmologists have also had a lot of patients. Really, all of us have, for this is a rare opportunity in the lives of the local people. The program has been a complete success, as we are also giving them one-dose remedies. We are not staying just in the urban areas, we have gone into rural areas as well. Yesterday we were in a commissariat in Bazan, La Tola, Izcuaude, La Bocana, and in just half a day we treated nearly 100 patients. For there is not just cholera here. Even though the number of cholera cases has declined, there are many other diseases which have never been treated."

Yesterday doctors went to the Bocagrande and Papayal areas in the Tumaco region. Next they will go to Salahonda.

### Health Ministry Releases Cholera Statistics

91WE0465A Bogota *EL TIEMPO* in Spanish  
11 Jul 91 p 5c

[Text] The Health Ministry confirmed yesterday that of the 74 cases in Cauca, four persons have died with symptoms of the disease, 15 others are hospitalized in Toribio, and 12 have been transferred to Caloto. It also reported three new victims in Tolima, one in Natagaima, one in Purificacion, one in Coyaima, and one in Aipe (Huila).

In Cauca, the death of the Indian woman Primitiva Caracol Paez was followed on 3 July by the death of Jose Arturo Mestizo Tombe, 26, and on 6 July by Jose Rivera Padi, 78, and Rosalbina de Yatacure, 35, a deaf-mute.

"Epidemiologists and medicines were immediately sent to the zone, and the situation was handled together with the Health Service. Everything seems to be under control."

To date there have been 3,176 reported cases of cholera in the country, 1,560 of them in Narino, 955 in Valle, and 586 in Cauca. There have been 46 deaths, with the four from Toribio and the additional confirmed 11 from Choco.

There has been a striking decline in the disease in Narino over the past 10 days. There has been only one case this past week, in Iscuande. The extremely rapid decline continues in the rest of the department, although from initially higher levels. There have been 1,560 cases in Narino, 1,349 of them in Tumaco.

In Cauca, cholera is still spreading. On Thursday, 415 cases were reported (178 in Guapi and 136 in Timbiqui). According to the latest report from the Health Ministry, as of yesterday there were 586 cases, 195 in Guapi and 215 in Timbiqui, plus the serious situation in Toribio.

In Valle, Buenaventura remains the principal focus of the disease, with 873 cases. In Choco, 24 have been reported; in Tolima, 26; in Cundinamarca, one; in Huila, 10; in Santander (Puerto Wilches), one; in Amazonas, seven; in Guaviare, two, and in Meta, one.

Although the Pacific coast is still the center of the epidemic, in recent days there have been isolated cases in the interior of the country and in municipalities near the Magdalena River.

The possibility that rivers are becoming contaminated has led to the formulation of a special sewage program.

The cholera prevention commission will be meeting throughout the month with the regional emergency committees.

Representatives from Santander, Antioquia, Bolivar, and Boyaca met on Friday. Delegates from Cesar, Bolivar, and Norte de Santander met yesterday. On the 13th delegates from Magdalena, Bolivar, and Cesar will meet in El Charco. On the 16th, representatives from

Magdalena and Bolivar will meet in Plato. On the 19th, delegates from Bolivar and Sucre will gather in Magangue, and on the 22d delegates from Atlantico, Bolivar, and Magangue will meet in Barranquilla.

## GUATEMALA

### Doctor Says Authorities Concealing Facts on Cholera

PA3007044091 Panama City *ACAN* in Spanish  
2244 GMT 29 Jul 91

[Text] Guatemala City, 29 Jul (ACAN-EFE)—According to a doctor at the Guatemalan Social Security Institute (IGSS), who disclosed that two rivers in the southern part of the country are contaminated, Guatemala's sanitation authorities are attempting to conceal the true extent of the cholera outbreak, which has already claimed its first fatality.

The doctor, who asked not to be identified out of fear of being fired, told the Guatemalan newspaper *LA HORA* that Health Minister Miguel Angel Montepeque is concealing all the information he possibly can with regard to the cholera outbreak to avoid alarming the people.

The doctor explained that a patient from San Marcos Department, which borders with Mexico, contaminated the Suchiate River with the cholera virus when he took a bath there before being brought to the capital.

The doctor reiterated that the health minister "is very well informed with regard to the extent of the disease," but he is keeping this information under wraps.

The Naranjo River, also, is 90 percent contaminated by fecal matter, according to *LA HORA* and "Noti 7" newscast reporters who toured the region to assess the peasants' situation.

The health minister maintains that there are only four confirmed cases of cholera in areas bordering with Mexico, and that the test results for 16 unconfirmed cases are awaited.

Nevertheless, the IGSS doctor gave assurances that there are over 70 patients suspected of having the virus, who are awaiting the results of their lab tests.

He added that at the IGSS alone there are six clinically confirmed cases of cholera.

Montepeque denied that the minor, Angel Giovanni Perez Gaspar, died from cholera in San Marcos, saying that his death was caused by a diarrheic syndrome; this contradicts the statement made by Deputy Health Minister Edgar Figueroa, who said the opposite.

Nevertheless, the minister admitted that the child had not been tested to dismiss the possibility of cholera.

Angel's father Francisco Mazariegos, who is stricken with cholera and who is receiving treatment at the

Coatepeque hospital on the country's southern coast, told the press that his son died from the same illness after they had eaten shrimp.

Coatepeque Hospital Director Marco Antonio Zenteno said that "several patients" have been admitted to the hospital, most them people who live along the Suchiate River.

He added that all of the patients are in one ward to prevent the disease from spreading.

Newspaper sources announced on 29 July that two other children died from cholera in Antigua, Guatemala, and two women died in the eastern department of Jutiana; this report has not been denied or confirmed by the authorities.

According to the health authorities' estimates, approximately 270,000 people could be contaminated if cholera spreads throughout Guatemala, and the mortality rate would be approximately 1 percent.

#### **Announcement of State of Emergency To Fight Cholera**

*PA0108182591 Panama City ACAN in Spanish  
2303 GMT 31 Jul 91*

[Text] Guatemala City, 31 Jul (ACAN-EFE)—Guatemalan Health Minister Miguel Angel Montepeque today announced "a state of national emergency" effective 1 August, "in an effort" to fight cholera.

Many sectors of society had called for this measure, fearing the spread of the disease that has already infected seven people, while another 67 are under medical observation.

According to Montepeque, President Jorge Serrano held a Cabinet meeting and decreed "a state of emergency" throughout the country, ordering other ministries "to cooperate" with the Health Ministry in "fighting the epidemic and preventing it from spreading."

### **HAITI**

#### **Cases of Typhoid Reported in Port-au-Prince, Leogane**

*FL0108203991 Port-au-Prince Radio Metropole  
in French 1600 GMT 31 Jul 91*

[Excerpts] Following reports of a typhoid epidemic in Carrefour, we learn that typhoid is raging in Leogane. Several people are infected and health officials at the Saint Croix Hospital are calling on concerned authorities to contain the spread of the disease. [passage omitted]

We recall that an emergency committee, coordinated by Dr. Lionel Bartelmy, was formed by the minister of health and population to combat the spread of typhoid which is raging in numerous metropolitan areas. The

committee is asking the population to intensify hygienic measures. [passage omitted]

Dr. Rudolph Malebranche who works at the State University of Haiti Hospital asserts that several cases of typhoid are admitted daily to the hospital and to other health centers in the country, such as Saint Charles Hospital and Adventist Hospital of Diquini. Contamination of various sources in Carrefour and Turgeau appears to be the origin of this typhoid fever epidemic.

### **PARAGUAY**

#### **Alto Parana—30 New Cases of Leishmaniasis**

*PY2707124091 Asuncion ULTIMA HORA in Spanish  
25 Jul 91 p 11*

[Summary] Thirty new cases of leishmaniasis have been confirmed in northern Alto Parana Department. It is also known that Indians in the commune of Arroyo Guazu and the colony of Co'eyu are infected with the disease. Dr. Eva Arza de Matheus, director of the Ninth Sanitary Region, has confirmed a noticeable increase in leishmaniasis in the entire zone but stressed that hospitals have enough medicine to treat the cases.

### **PERU**

#### **Rare Epidemic Kills 17, Could Be Yellow Fever**

*PA0508033191 Paris AFP in Spanish 2059 GMT  
4 Aug 91*

[Text] Sanitation authorities confirmed today that a medical contingent with medicines and other supplies left today for the southeastern jungle district of Quimpiri. A rare epidemic that could be yellow fever has killed 17 persons and affected 60 others in that area.

The illness is affecting eight other hamlets in the La Convencion province, 300 km northwest of Cusco.

Angel Del Carpio, director of the regional hospital of the Peruvian Social Security Institute (IPSS), reported that, up to this date, the origin of the illness is still unknown, although he did not rule out the possibility that it could be a strong epidemic of yellow fever, which is common in the area.

"We are waiting for reports from our colleagues who went to Quimpiri," he said and added that there have been three yellow fever epidemics in that town this year.

"It is a contaminated area and its tropical climate is favorable for this kind of illness," he added.

A spokesman for the Civilian Defense of Quillabamba, capital of La Convencion province, said that equipment (medical, sanitary, medicines, provisions, and tents for

emergency medical posts) was sent to Quimpiri and nearby towns like Lusiana, Pichana, San Francisco, Ayna, Capashiari, Cirialo, Malaquiato, and Koribeni.

## URUQUAY

### Measles Epidemic Spreads Across Country

*PY1008235091 Montevideo EL PAIS in Spanish 30 Jul 91 p 7*

[Summary] National Health Director Eduardo Lasalvia on 29 July reported that a measles epidemics has spread all over the country and that 500 cases—one of them fatal—have been detected, especially in Salto, Paysandu, Rocha, and Montevideo. Lasalvia added that a vaccination campaign has started for children under 12.

## VENEZUELA

### Hemorrhagic Dengue Diagnosed in Tachira

*PA0908025891 Caracas EL UNIVERSAL in Spanish 31 Jul 91 p 1*

[Text] San Cristobal, 30 Jul (Venpres)—The health authorities in the state of Tachira have declared an "epidemiological alert" after 13 positive cases of hemorrhagic dengue were diagnosed in areas along the border with Colombia. This was announced by Gerson Diaz, health director for the region. Diaz said that the office of the governor, the Health Ministry, and other health organizations in the region, have declared the state of alert and together will launch a major operation to prevent the spread of the disease.

Diaz said that Tachira State Governor Jose Francisco Ron Sandoval issued precise orders for the fumigation of areas in rural communities along the border with the northern Colombian department of Santander.

**AFGHANISTAN****Anti-malaria Campaign Begins in Kabul**

91WE0468A Kabul *THE KABUL TIMES* in English  
8 Jun 91 p 4

[Text] The campaign of anti-malaria spray began in Kabul city precincts.

A spokesman for this institute of malaria and parasitology said that the medicine spray will continue until October 22 and the units of our institute will spray once a week all stagnant waters, swamps, drainage, the streams along the roads and Kabul rivers. (BIA)

**BANGLADESH****Outbreaks of Diarrhea, Skin Diseases**

91WD1034A Dhaka *THE NEW NATION* in English  
5 Jul 91 p 2

[Text] Maulavibazar, July 3—Diarrhoeal disease claimed 100 lives and attacked 20,000 others in 6 upazilas of the district during the last month.

Official sources said 69 medical teams have been working in the affected areas of Sreemongal, Kamalganj, Barlekha and Sadar upazilas to contain the menace.

Acute scarcity of oral and intravenous saline in the upazilas has compounded the miseries of the patients, it is alleged.

Consumption of adulterated foodstuff and use of water from open waterbodies have resulted in the spread of the diseases, doctors said.

A correspondent from Islampur (Jamalpur) writes: Stomach and skin ailments have broken out alarmingly in the Islampur upazila due to consumption of adulterated foodstuff. The outbreak has been more prevalent in village bazars where foodstuff is being sold in uncovered conditions. Informed sources said that spurious edible oil including mustard oil, butter oil and milk were being openly sold at random.

According to the hospital source, innumerable patients are pouring in with complaints of diarrhoea and dysentery.

**INDIA****Dysentery, Gastroenteritis in Madhya Pradesh**

91WD1066 New Delhi *PATRIOT* in English 11 Jul 91  
p 5

[Text] Bhopal, 10 July (UNI)—A total of 264 persons died of dysentery, and gastro-enteritis in the Chhattisgarh region of Madhya Pradesh in the fiscal year 1990-91 while as many as 67,784 persons in 16 districts were

affected due to "nuru", the disease caused by guinea worm, the Vidhan Sabha was informed.

In a written reply on Tuesday, to a question by Mr. Mahesh Tiwari, Minister of State for Health Dr. Rajendra Prakash Singh said that Bastar topped the list of number of deaths with 63 due to dysentery and 198 due to gastro-enteritis. Deaths in the Durg and Rajnandgaon districts were due to gastro-enteritis only while Bastar, Raipur, Bilaspur, Sarguja (Ambikapur) and Raigarh were affected by both the diseases.

The State Government, which in its drive against these diseases, has spent more than Rs-nine lakh, had notified the entire area and launched a cleanliness-cum-awareness campaign, he added.

In a separate reply, the Minister told Ms. Kalyani Pandey that Jhabua was the most affected district due to 'guinea worm' with patients numbering more than 50,000. A programme for eradication of 'guinea worm' was launched in 1983-84 and there were no reports of death due to this disease for the last three years, he added.

**Gastroenteritis Kills 113 in Himachal Pradesh**

BK2607045491 Delhi *All India Radio Network*  
in English 0240 GMT 26 Jul 91

[Text] In Himachal Pradesh, the epidemic of gastroenteritis and cholera has claimed 113 lives so far. According to an official spokesman, 97 people died in Mandi District alone. More than 100 people are under treatment in different hospitals.

**Cholera Reported in Delhi, Madras****Report From Madras**

91WD1004A Madras *INDIAN EXPRESS* in English  
22 Jun 91 p 3

[Text] Madras, 21 Jun (Express News Service)—Twenty-two definite cholera cases were reported from the City suburbs on Friday, following its outbreak in the past two days.

An official release said that nearly 102 patients from the Padi and Ambattur industrial areas suffering from acute gastro-enteritis, suspected cholera, were admitted to hospitals for treatment.

A few cases were reported in different parts of the state including Varanjavaram in Villupuram district, Malayadipadi village in Kamarajar district and Arcot municipality.

The outbreak is due to the recent rains. The health department is taking precautionary measures to check the spread of the disease. Almost 1.6 lakh people throughout the state have been given anti-cholera inoculations. Nearly 21,623 wells and water supply sources

have been chlorinated and all infected houses and cholera affected areas disinfected.

In the areas where definite cases have been reported, the local bodies have taken immediate action to improve the sanitation and hygiene conditions. The patients have been isolated. The public have been asked to drink only boiled or chlorinated water, consume hot food and not to eat food exposed to flies and dust and get themselves inoculated.

Eating places and establishments are being inspected to ensure that food is cooked in clean surroundings.

The public have been requested to intimate details of cases to the nearest local health authorities.

### Rise in Delhi Cases

91WD1004B *New Delhi PATRIOT in English*  
12 Jun 91 p 3

[Text] Though the cases of cholera have gone up this year, there is no need to feel panicky about it, as the situation is well under control, assured the Municipal Commissioner [MC] P.P. Chauhan, while addressing a press conference in the Capital on Tuesday.

He said that there is no cause for much worry, as the reported cases of cholera do not form any clustering. About 145 cases of cholera reported at Infectious Disease Hospital in July 1991, are well spread over in 91 colonies. The clustering has only taken place in Jahangirpuri Raj Nagar (Palam) and Tuglaqabad Ext., where the MCD has immediately reacted to the situation, he added.

He said that only one child died of cholera this year. In May 1990, only 35 cases of cholera and one death were being registered.

Mr. Chauhan said that in his meeting with the medical experts on Monday, the latter feel that the areas where the clustering of cholera cases are being reported, however, do not reflect any pattern. Consequently, the epidemic disease is not likely to spread rampantly.

But the Corporation has no intentions to play down the spread of cholera, as reported by some newspapers, he added.

"The Corporation has geared up its machinery to take up the task of cleaning up the areas of accumulated garbage and maintain the supply of clean water. Besides, three agencies, the MCD, Directorate of Health Service and Urban Basic Service—have started distributing cholera tablets in vulnerable areas since 15 May."

Mr. Chauhan said the Corporation is also keeping a check on water trollying and unlicensed ice-cream vendors being hauled up. Of 2,000 water trollies, the Corporation has checked 1,038 trollies and apprehended 16 persons selling unhygienic water. Besides, all the shallow handpumps had been painted red to warn people not to use this water for drinking.

Mr. Chauhan said the Corporation is also trying to educate people about the epidemics through distributing pamphlets, newspaper advertisements and by holding a panel discussion by experts on the subject on TV. Moreover, a special drive for cleaning up the areas has been started from Monday.

However, he admitted that over 50 percent of the MCD leaders, which carry garbage, are not functioning and in such situation, it would be an uphill task to carry on the cleanliness drive effectively.

Meanwhile, Mr. Chauhan said, there is a marginal decrease in the number of gastroenteritis reported this year. Only 10,256 cases of gastroenteritis have been reported in April and May this year, as against 12,437 cases reported during the same period last year.

### Cases of, Measures Against Cholera Reported

#### Increase in New Delhi

91WD1064 *New Delhi PATRIOT in English* 11 Jul 91  
p 3

[Text] There is a marked increase in cholera cases reported all over the Capital. However, the MCD claims to have the situation well under control, undertaking vigorous preventive measures.

According to Municipal Commissioner P.P. Chauhan 250 cholera cases were reported from 13 index hospitals between April and June this year, as against 110 cholera cases reported last year for the same period.

But the reported cases of cholera do not reflect any uniform pattern, the medical health officer Dr. Devraj said. A marginal concentration of cholera cases were found in Jahangirpuri, Raj Nagar (Palam Colony), Badarpur and Tughlaqabad Extn.; but these areas were taken care of, he added.

During the MCD drive, Mr. Chauhan said about 70148 kgs of unwholesome food and about 83 kg of ice unfit for human consumption was destroyed in June. Similarly, 69 of the 2,008 licensed water trollies were seized for violating prescribed norms.

The MCD also banned selling of sugarcane juice in its five zones, namely, Shahdara, South and North, Civil Lines, Sadar, Pahar Ganj and South Zone. Forty-four sugarcane crushers were seized during June for violation of these orders. Chlorine tablets were also distributed in several areas having inadequate supply of potable water.

#### Deaths in Bihar

91WD1064 *Calcutta THE TELEGRAPH in English*  
6 Jul 91 p 4

[Text] Jamshedpur—Seven persons have been killed and over 20 are undergoing treatment for cholera in the Baharagora Hospital in the east Singhbhum district of Bihar, our correspondent reports. Villagers in

Manusumaria, Mango and Bharagora blocks complained of the lack of medicines and vaccine facilities. According to unofficial sources, at least 29 persons had succumbed to water-borne diseases in different parts of the district.

### Madras Anticholera Drive

91WD1064 Madras *INDIAN EXPRESS in English*  
4 Jul 91 p 2

[Text] Madras, 3 July—The Madras Corporation will cover over two lakh persons in the coming months at its mass inoculation camps being conducted throughout the City in the wake of the outbreak of cholera.

Corporation Special Officer V. Manivannan told presspersons while on a visit to some of the areas in North Madras on Wednesday that, so far about 70,000 persons had been inoculated. The disease, which claimed two lives in the city suburbs last month, was much under control now following the extensive measures taken by the Corporation.

A few cases of cholera were reported in Padi and Ambattur in the beginning of last month. Slowly, the disease spread to the city and a few cases were reported from Villivakkam, Arumbakkam, Choolaimedu and neighbouring areas. In the city alone, of the 793 admissions for acute gastro-enteritis at the Communicable Disease Hospital in Tondiarpet, nearly 333 were confirmed to be cholera and are being treated.

However, in the last three to four days, the positive rate of the disease had come down to 30 per cent from the initial 42 per cent.

The Corporation along with Metrowater has intensified its measures to prevent spread of the disease. Nearly 4533 wells all over have been chlorinated, 30,000 chlorine tablets distributed to slum-dwellers and oral rehydration powder given to people suffering from diarrhoea and vomiting. This apart, efforts are being taken to educate the masses on drinking boiled water and keeping surroundings clean.

Giving figures of the incidence of cholera up to June in the previous years Corporation Commissioner M. Abul Hassan said the number of cases reported in 1986 were 106, 1987—412, 1988—376, 1989—302 and 1990—405. This year, there was an influx of patients from Padi, Korattur, Ambattur and other peripheral areas to the city, he said.

In a slum in Pallava Nagar in Royapuram where 10,000 persons live, nearly 9120 have been inoculated. A ten-member team of Corporation staff headed by Assistant Health Officer P. Kuganatham have been carrying out intensive preventive measures in Royapuram, Tondiarpet and Korrukupet where the living conditions of the people are poor and where a number of cholera cases have been reported. About 15,000 chlorine tablets have been distributed to the families and fogging operations are in full swing to do away flies.

At the Communicable Diseases Hospital in Tondiarpet round-the-clock services are offered to rush hospital ambulances to pick up patients suffering from cholera or acute gastro-enteritis. Care is being taken to see that the cholera wards are regularly disinfected, as also the vehicles transporting patients to the hospital.

### IRAN

#### Rheumatism Afflicts 23 Percent of Population

91WE0416Z Tehran *ABRAR in Persian* 13 May 91 p 9

[Text] Twenty-three percent of the people of Iran suffer from some form of rheumatism, whose most prevalent form is arthritis.

This was announced in Mashhad by Dr. Mohammad Reza Hatef, member of the Iran Rheumatology Society, in an interview with a correspondent from the ISLAMIC REPUBLIC NEWS AGENCY.

He said: One in six of the people who refer to the nation's health care clinics is suffering from some form of rheumatism, whose symptoms appear with increasing age.

He noted: One of the most common kinds of joint and bone pains is arthritis, which afflicts about 90 percent of those over 60 years of age.

He said: When arthritis strikes, no treatment can return the worn-away cartilage to its original state, and the recommended treatments are symptomatic.

He said: The only treatment when the illness has been diagnosed is teaching the patient not to exert excessive pressure on the afflicted joint.

He added: In treating another type of rheumatism known as rheumatoid arthritis, long-term use of drugs to prevent destruction of the joints is necessary, and in this regard irregular use of the drugs will intensify the symptoms and damage the joints.

#### Study to Determine Causes of Heart Attacks

91WE0416Y Tehran *ABRAR in Persian* 4 May 91 p 4

[Text] After completing the preliminary blood pressure project in Tehran, the Center for Heart and Circulatory Studies at the Tehran College of Medical Sciences began the research project to study the causes of heart attacks and strokes.

The public relations office of the Tehran College of Medical Sciences reports that this project, which is actually considered the first and largest study in the Third World on the risk factors for heart attacks and strokes, will be conducted in Iran to identify and control the danger factors for heart and circulatory diseases in Iran.



The project will be carried out by a research team at the Tehran College of Medical Sciences composed of 200 professors, assistants, interns, and fourth- and fifth-year medical students.

According to this report, at the beginning of this project 12,000 subjects above the age of 15 from 40 different districts in Tehran would be placed under continuous observation at the Center for Heart and Circulatory Studies at the Tehran College of Medical Sciences after undergoing the most advanced cardiac and circulatory examinations. Researchers at this center also plan to carry out nationally on a wide scale the project to monitor and prevent heart and circulatory disease by precisely identifying the extent of danger of each of the danger factors associated with heart and circulatory diseases, which are considered the most important and deadly killers of human beings.

The main programs in this project, including design, implementation and forming the relevant computer networks, are being carried out by medical students interested in research under the direct supervision of the chief of the Tehran College of Medical Sciences.

#### **Construction of Hospitals Throughout Iran Planned**

*91WE0416W Tehran ABRAR in Persian 2 May 91 p 4*

[Text] News Service—Ninety-eight hospitals and 120 health care and treatment centers are to be put into service by the end of the decade of the 1370s [20 March 2001] by the Iran Home Construction Company, with 500 billion rials allocation from the capital fund of the Iran Social Security Organization.

Engineer Nasrollah Tahbaz, the executive director of the Iran Home Construction Company, gave a press conference yesterday morning. While announcing the above and noting that half of these hospitals and treatment centers are already under construction, he said: The construction of 42 hospitals with 8,000 beds and 50 health care and treatment centers has been started throughout the country by the Iran Home Construction Company. By the end of next year [20 March 1993], 12 hospitals will go into service.

He said that of the 50 health care and treatment centers on which construction has begun, 20 units have gone into service, and by the end of the current year [20 March 1992] 20 more centers will be completed. He said: When 98 hospitals are put into service under the first and second economic and social expansion plans, 16,000 hospital beds will be added to the existing hospital bed capacity.

The executive director of the Iran Home Construction Company discussed work underway in this company. He said: Construction has begun on a hospital in Tehran with 800 to 1,000 beds and a foundation size of 100,000 square meters. It will go into service within four years.

He noted that this hospital is one of the largest in the nation. The government has allocated to the Social Security Organization the credits needed to buy equipment for hospitals, and in this regard extensive preparations have been made.

Continuing, he discussed the activities of the Iran Home Construction Company. He said: This company began its work in 1347 [21 March 1968 -20 March 1969] using investment credit from the Social Security Organization. It is now continuing its work designing and creating health care and treatment centers and residential units, utilizing 150 specialists.

Engineer Tahbaz discussed the construction of housing units by the Iran Home Construction Company. He said: Until the splendid triumph of the Islamic revolution, the Iran Home Construction Company had major activity in residential construction, but after the triumph of the Islamic revolution and in view of the nation's need for health care and treatment centers, the company began taking extensive measures in connection with the construction of hospitals.

According to him, the Iran Home Construction Company carries out 70 percent of the nation's hospital construction projects.

He added: Before the triumph of the Islamic revolution, there were 12,000 residential housing starts in various parts of the country, which were gradually transferred to those insured with social security.

The executive director of the Iran Home Construction Company noted that the Social Security Organization is turning 1,000 residential units over to workers in the municipality of Shushtar. He said: The Iran Home Construction Company is carrying out extensive programs to build low-cost residential units for those with social security insurance, and these programs will be announced soon.

#### **Favism Outbreak Reported in Gilan**

*91WE0416X Tehran ABRAR in Persian 2 May 91 p 9*

[Text] As more Mazandarani broad beans are being marketed, favism has spread through various parts of the Province of Gilan.

The ISLAMIC REPUBLIC NEWS AGENCY correspondent reports that in the last few days about 150 children in the municipality of Rasht have been hospitalized with favism in 17-Shahrivar Pediatric Hospital in Rasht alone.

In an interview with the correspondent from the ISLAMIC REPUBLIC NEWS AGENCY, the chief of this hospital discussed the ways this illness spreads. He said: The extreme sensitivity to this type of bean, which is marketed in the spring, is such that even contact and smelling the broad bean and its plant will induce favism

in those who are susceptible to it. Its symptoms are dizziness, nausea and vomiting, as well as fever and anemia.

He called upon families throughout the country to contact the medical centers immediately upon observing the symptoms of the disease.

He said: The only cure for this disease is blood transfusion, and if treatment of favism is delayed death could result. It is worth noting that individuals may contract favism by eating Mazandarani broad beans raw or cooked. In conclusion, he said: Last year also more than 1,000 children were hospitalized and treated at this hospital with favism.

## IRAQ

### **Nineteen New Cholera Cases; 260 Recorded Since May**

*JN2407173791 Bagdad INA in Arabic 1540 GMT  
24 Jul 91*

[Text] Baghdad, 24 Jul (INA)—The Health Ministry departments have registered 19 new cholera cases over the past few days.

In a statement to INA, Dr. 'Abd-al-Amir al-Thamiri, director general of the Preventive Medicine Department at the ministry, said that three of the new cholera cases are in Baghdad, six others in Babil, nine in Diyala, and one in al-Qadisiyah Governorate.

It is worth noting that the total number of cholera cases registered by the Health Ministry since the disease was officially publicized in May has so far risen to 260.

### **Thirty-five New Cholera Cases Reported**

*JN3107150491 Baghdad INA in Arabic 1218 GMT  
31 Jul 91*

[Text] Baghdad, 31 Jul (INA)—Iraqi health departments have registered 35 new cholera cases over the past six days.

In a statement to INA, the director general of the Preventive Medicine and Environmental Protection Department said that the cholera cases were distributed as follows: nine in Baghdad, 12 in Diyala, two in Ninawa, three in al-Qadisiyah, four in Maysan, and five in Babil.

The director general added that no deaths have been reported and that those infected with the disease are receiving intensive treatment at hospitals and health clinics.

### **Forty-one New Cholera Cases Discovered Over Past 7 Days**

*JN0708172191 Baghdad INA in Arabic 1605 GMT  
7 Aug 91*

[Text] Baghdad, 7 Aug (INA)—Over the past seven days, health groups have registered 41 new cholera cases and discovered nine cases carrying the Okawa [name as received] virus.

Health Ministry sources told INA that the discovered cases are distributed as follows: Nine in Baghdad, four in each of Salah al- Din, Al-Qadisiyah, and Babil Governorates, three in Ninawa, five in Maysan, 10 in Diyala, and two in Karbala'. As for those carrying the Okawa virus, they are distributed as follows: Three cases in Baghdad, four in Diyala, and two in Maysan.

The source said that the health groups have also registered two Polio cases in the Baghdad and Diyala Governorates and one case of Meningitis in Wasit Governorate.

### **Forty-eight New Cholera Cases Recorded**

*JN2108151491 Baghdad INA in Arabic 1125 GMT  
21 Aug 91*

[Text] Baghdad, 21 Aug (INA)—In the past six days, health departments in Iraq have recorded 48 new cholera cases.

The director general of the Health Ministry's Preventive Medicine and Environmental Protection Department said there were 22 cases in Diyala, 7 in each of Baghdad and Ninawa, 5 in Dahuk, 3 in al-Najaf, 2 in al-Anbar, and 1 in each of Karbala' and al-Muthanna. One 4-year old child died in Baghdad.

### **Infant Mortality Rate Rises in al-Muthanna**

*JN0308135791 Baghdad INA in English 1320 GMT  
3 Aug 91*

[Text] Al-Samawah, Aug 3, (INA)—Infant mortality rate had risen in al-Muthanna Province due to the stumble of the preventive medicine program and the shortage of milk and vaccines as a result of the continued economic sanctions and the U.S. aggression against Iraq.

In a statement published today by AL-JUMHURIYAH daily, director of health protection department at the province Dr. Ra'd al-Shamma' said the American bombings and subsequent acts of sabotage had prevented health institutions from covering all age groups in need of vaccination.

Dr. al-Shamma' pointed out that irregular supply of drinking water had largely contributed to increasing diarrhea cases among children, as compared to previous years.

## JORDAN

### Sharp Increase in Brucellosis Cases

91WE0483 Amman JORDAN TIMES in English  
17 Jul 91 p 3

[Text] Amman (J.T.)—Statistics about brucellosis cases released by the Health Ministry indicate a sharp rise in the number of Jordanians affected by the disease over the past five years.

According to the statistics, there was only one case of brucellosis in Jordan in 1979. It has since risen to 521 in 1986, 622 in 1989 and 729 in 1990. These figures only show those cases which were referred to government and private hospitals or health centres. According to Health Ministry sources, there are many others which remain unknown.

The sources said that veterinarians and doctors of medicine are among those who are most exposed to this disease, apart from the farmers, and that 28 out of 85 veterinarians employed by the Ministry of Agriculture were among those infected over the past five years.

A locally produced vaccine used by veterinarians to inoculate animals, particularly sheep and goats, has

proved ineffective because the sharp rise in the number of brucellosis cases in the Kingdom began shortly after the use of the vaccine was initiated in 1985, the sources said.

The sources said that in 1989 12.8 percent of the total number of sheep in Jordan or 250,000 heads were infected by brucella (bacteria that causes disease in man and domestic animals). They said that inoculation of animals against the disease was essential.

Human beings can easily be infected if they depend on animals for most of their food.

The sources said that while the Health Ministry is trying—through preventive medicine which entails immunisation against the disease—to curtail its spread in Jordan the Ministry of Agriculture is trying to inoculate animals to prevent the spread of the disease.

However, they said that their efforts were not enough especially as the locally developed vaccine is not effective at a time when more and more Jordanians depend, to a great extent, on milk and its various by-products, which are a vehicle for the spread of animal diseases to human beings.

**Nitrate Poisoning in Altay Territory**

*PM1408153491 Moscow MOSCOW NEWS in English  
No. 30, 28 Jul-4 Aug 91 p 2*

[Unattributed report from the "300 Words" column]

[Text] Two cases of an unusual children's disease have been registered in the village of Gilevka in the Altay Territory. When the compound of nitrates present in the ill person's blood disintegrates, the body turns light blue. Both children were supposedly poisoned by contaminated drinking water. Due to the burying of pesticides around the village, the nitrate content in the well water is several times higher than the permissible concentration.

**Serious Meningitis Outbreak in Far East Town**

*LD2907184691 Moscow TASS International Service  
in Russian 1205 GMT 29 Jul 91*

[Text] Komsomolsk-na-Amure, (far east) 29 July (TASS)—About 100 children have been taken to the town's hospital with a preliminary diagnosis of serious meningitis. The outbreak of the infection took place simultaneously in several kindergartens. In the doctors' opinion drinking water is the cause of the infection.

"Usually there are no more than one or two such cases in a year," Ye. Khvostikova, head of the city public health department, said. "The present case is an extraordinary one. All measures have been taken to localize the center of the infection and to provide preventive measures and treatment for the children."

There is a constant shortage of drinking water in the town with its population of 350,000 people. The existing water supply system is working under conditions of considerable overload and does not insure quality treatment. A large capacity water intake which was built six months ago is still not working.

**Meningitis Virus Discovered in Amur**

*OW0208050491 Moscow INTERFAX in English  
1430 GMT 1 Aug 91*

[Following item transmitted via KYODO]

[Text] One hundred and twenty-four children from 2 to 12 years of age are hospitalized in Komgomolsk-upon-Amur with serious virus meningitis. The epicentre of the disease was registered in the central part of the city.

According to the head physician of the Khabarovsk regional SES (Sanitary Epidemic Station) the water analysis in the central part of the city proved the existence of that virus. Seventy-two percent of the diseased drank unboiled water the rest bathed in Amur. The Extraordinary Commission takes measures for preventing the centre of infection.

**'Hundreds' of Children Hit by Meningitis Outbreak**

*LD0908185291 Moscow All-Union Radio First Program  
Radio-1 Network in Russian 1200 GMT 9 Aug 91*

[Text] A disturbing report has reached us from Komsomolsk-on-Amur. Hundreds of children in the town have been struck down by the serous meningitis virus. Emergency measures have been adopted. Warnings are regularly appearing in the press and a special regime of water utilization has been enforced. However, so far attempts to halt the outbreak of the disease have been unsuccessful. Between 15 and 25 children, mostly infants, are being brought to the hospitals every day. Prophylactic methods are not sufficiently effective because the paths of the outbreak of the infection have not been established. Luzin, the town's chief surgeon, has reported that the disease on such a scale is unprecedented in Komsomolsk-on-Amur. If the outbreak is not localized primary school classes will have to be cancelled in September.

**Cholera Case Diagnosed in Berdyansk**

*PM0608121591 Moscow IZVESTIYA in Russian  
27 Jul 91 Union Edition p 7*

[Report by correspondent V. Filippov: "Fears of Cholera Outbreak in Berdyansk"]

[Text] A three-year-old female pupil at a Berdyansk boarding school, who fell ill with dysentery while on vacation at a dacha, has been found to have a cholera vibrio.

Physicians who have examined everyone who had been in contact with the girl as a matter of urgency, disclosed that one more female pupil from the boarding school is a carrier of the dangerous pathogenic organism. Specialists from Zaporozhye Oblast Medical and Epidemiological Station and the Crimean Antiplague Station are attempting to establish whether this vibrio is capable of causing an outbreak of cholera. IZVESTIYA's own correspondent V. Filippov reports that monitoring of the condition of the Sea of Azov's water has been stepped up and a search for the cholera vibrio's source is being conducted.

**Source of Cholera Outbreak Discovered**

*LD3007183491 Moscow All-Union Radio Mayak  
Network in Russian 1000 GMT 30 Jul 91*

[Summary] Specialists have completed their investigations into the source of cholera on Berdyansk. They have discovered the carrier and traced the source to an abandoned sewage well leaking into a blind branch of a water pipe feeding the summer dacha of the Berdyansk boarding school. All those staying there at the time have been checked. There are no sufferers in Berdyansk and none are expected. Monitoring of water continues. Bathing is still permitted in the Azov Sea. It is recommended that drinking water be boiled.

### **Two Children Infected With Cholera in Berdyansk**

*PM0808101691 Moscow PRAVDA in Russian 6 Aug 91  
Second Edition p 2*

[Report by I. Sergeyeva: "Will Cholera Seize Us?"]

[Text] Zaporozhye—The oblast's water sources have taken the fancy of the cholera germ. First it was found in the waters of the Dnepr, now in the Azov Sea. But whereas in the first case the pathogen simply appeared and then disappeared, in Berdyansk there are victims. Two children from a boarding school are infected with cholera.

The source of cholera in Berdyansk has been localized.

### **Choleric Agents Found in Ukraine**

*LD0808191191 Kiev Radio Kiev International Service  
in Ukrainian 1900 GMT 7 Aug 91*

[Text] Choleric and choleric-like vibrios [vibriosis] have been registered by the hygienic-epidemiological stations in Kharkov, Donetsk, Zaporozhye, Cherkassy, Dnepropetrovsk, Crimean and Nikolayev oblasts. Several carriers of so-called nonvirulent vibrios have been identified in Odessa and Lugansk oblasts and along the Azov Sea coastline.

The republic's epidemiological service has implemented measures to strengthened control of the state of water reservoirs and the quality of food sold in stores and market stalls.

### **Donbass Azov Sea Coast Closed Due to Cholera Risk**

*PM0908142891 Moscow IZVESTIYA in Russian  
8 Aug 91 Union Edition p 2*

[Report by Nikolay Lisovenko from Donetsk under the "Direct Line" rubric: "Sea Closed"]

[Text] An emergency session of the oblast antiepidemic commission has been held in Donetsk. It was decided to ban vacationers from the entire Azov coast of the Donbass.

The reason for this harsh decision was the sharp deterioration in the quality of the sea water. Because of extreme heat which has persisted for more than a month now, about 10 types of dangerous pathogens of intestinal diseases have multiplied in the water, exceeding the maximum permissible concentrations by hundreds of thousands of times.

In Mariupol the other day a seriously ill patient was hospitalized, and doctors made a preliminary diagnosis of cholera. Subsequent laboratory analyses confirmed the diagnosis. Prior to falling acutely ill the patient had been vacationing on the coast near the village of Yurevka, where the best beaches are. The cholera bacterium has also been isolated in tests carried out on water from the Kalchik stream, which flows through Mariupol. In view of the dangerous situation, as well as the fact that recreational establishments on the coast are very poorly provided with drinking water and do not have sanitation, the emergency commission decided to close the entire resort zone until better times.

### **Ukrainian Cossack Anniversary Celebration Postponed**

*LD2707002191 Kiev Radio Kiev International Service  
in Ukrainian 1900 GMT 25 Jul 91*

[Excerpts] The Dnepropetrovsk Oblast organizational committee for hosting the rallies to commemorate the 500th anniversary of Zaporozhye Cossackdom has published an announcement that due to the grave epidemiologic situation prevailing in several rayons of the region, the committee is compelled to postpone celebrations to later dates in August. [passage omitted]

As to the disease, which is spreading among animals and partially among children of Dnepropetrovsk Oblast, everything is being done to identify its sources and localize them.

### **Anthrax Reported in Dnepropetrovsk Oblast**

*LD1108134991 Moscow Central Television First  
Program Network in Russian 1200 GMT 11 Aug 91*

[From the "Television News Service" program]

[Summary] A case of malignant anthrax [sibirskaya yazva] has been registered in Dnepropetrovsk Oblast. An announcement was made on the town's radio network saying that those who had bought meat from one particular shop must not eat it because it carries a dangerous disease.

V.S.Kryzhanovskaya, a doctor, says that there has been one case of malignant anthrax. The person was hospitalized. Specialists from Kiev and Dnepropetrovsk are now working on this problem. An investigation will soon be underway. [video shows a butcher's shop, animals being fed by a woman, and an interview with Kryzhanovskaya].

## DENMARK

**Canine Virus Affecting Entire Country**

91WE0443B Copenhagen BERLINGSKE TIDENDE  
in Danish 5 Jul 91 p 6

[Article by Sten Tolderlund: "Virus Killing More Dogs"—first paragraph is BERLINGSKE TIDENDE introduction]

[Text] Distemper is ravaging the entire country, and for the first time in 20 years the disease has serious after-effects in the form of swollen pads and snouts that crack.

Hundreds of dogs all over Denmark have recently come down with distemper—a virus that corresponds to measles in human beings. Many dogs are either dead or have been destroyed, while other dogs have serious troubles in the period after their illness.

"In many cases, a thickening of the pads and snouts that crack occur, and that has not been seen during the last 20 years," says Veterinarian Merete Bixenkrone-Moller of the Royal Veterinary and Agricultural High School in Copenhagen.

The symptoms of the disease are exceedingly varied: for instance, thick, yellow tears flowing from the eyes, coughing, pneumonia, vomiting and diarrhea as a result of disturbances in the stomach and the intestines. The sick dogs also appear to be nervous.

It is not known precisely how many dogs have had and have the disease, because every dog owner or veterinarian is required to report it, but they have not all done so.

The government's veterinary serum laboratory in Arhus states that material from 70 or 75 sick dogs has been scrutinized and the laboratory has examined many dead dogs.

"Dog owners should see veterinarians if they notice that their dogs have symptoms of distemper. People cannot do anything themselves," Merete Blixenkrone-Moller says.

Dogs of all ages come down with the disease and even vaccinated dogs are in danger of catching it.

Distemper is an insidious disease, so a month or two can pass from the time the dog catches it before the disease breaks out.

## IRELAND

**Danger From Imported Rabies Said to Grow**

91WE0453 Dublin IRISH INDEPENDENT in English  
21 Jun 91 p 10

[Article by Willie Dillon]

[Text] Ireland faces a greater danger than ever before of importing the deadly menace of rabies, Agriculture Minister Michael O'Kennedy warned yesterday.

His warning came as experts here and in Britain try to assess whether the opening of the Channel tunnel will significantly increase the risk of the disease crossing from the Continent.

Rabies in foxes reached the Channel coast just last year.

The Minister said the increase in holiday traffic to the Continent meant the risk of rabies getting into Ireland was "greater than ever."

Public co-operation and vigilance at all times was essential to keep out the invariably fatal disease.

The last case of rabies recorded in Ireland was in 1903.

But some people here fear that the Euro tunnel opening will leave us susceptible to infection from animals crossing from France into England.

There are no controls on dog and cat movements between Britain and this country. However, experts working on the tunnel said it should pose no greater risk than existing Channel traffic.

The tunnel had been designed to ensure animals could not cross from France into England.

**Pigeons Said to Spread Newcastle's Disease**

91WE0454 Dublin IRISH INDEPENDENT in English  
17 Jun 91 p 9

[Article by Willie Dillon]

[Text] Many of Ireland's wild pigeon population may be carrying a deadly poultry virus which has forced the slaughter of more than a quarter of a million laying hens in counties Monaghan and Cork since last year.

Infected pigeons have been blamed for all three outbreaks of Newcastle Disease, a highly contagious poultry virus, which had not been seen in this country for nearly 40 years.

The threat to the national poultry flock has been highlighted by the cancellation of the poultry section of this year's Cork Summer Show at the end of this month, at the behest of the Department of Agriculture.

The Department said poultry exhibitors were advised not to take part "as a precautionary measure" because of the possibility of infection from wild pigeons at Cork docks. Recent tests at the docks and at nearby Ringaskiddy found that some pigeons had the pigeon strain of the virus.

There is speculation in the trade that the disease may have come into Ireland in contaminated feed imported through Belfast. It is thought that dockside pigeons may have eaten some of the feed.

The Department has issued guidelines to all poultry owners, advising them to ensure that they use only feed which has been heat treated, thereby destroying the organism. New regulations to be introduced shortly will make the use of heat treated feed compulsory.

## UNITED KINGDOM

### Survey of Heart Disease Causes Launched

91WE0450 London *THE DAILY TELEGRAPH*  
in English 29 Jun 91 p 2

[Article by Peter Pallot]

[Text] A 1 million research drive to tease out the relationship between the five known causes of heart disease was announced by the Government yesterday.

The lifestyles of 4,000 people will be closely monitored to allow doctors to assess the relative importance of disease triggers.

Doctors agree that sedentary living, smoking, diet, stress and family history all play a part in heart disease, which kills three in 10 men and two in 10 women. Dispute centres around how lifestyle factors link up to cause 160,000 early deaths a year.

Mr. Waldegrave, Health Secretary, said: "We simply do not have enough information, not only on what the risk factors are, but about how they are distributed and what their impact is on different parts of the population."

Doctors employed by the Office and Population, Censuses and Surveys will check cholesterol levels, height, weight and other physical details in volunteers. They will also note lifestyle factors relating to diet, smoking, exercise and whether the volunteer has been under stress.

The project, due to begin in September, will later be widened to take in more volunteers, Mr. Waldegrave said at the meeting in Bournemouth of the National Association Health Authorities and Trusts.

It is also planned to encompass diseases such as cancer, the second biggest killer, and strokes.

Results of the survey, which will follow people through their lives, will be published yearly.

### Rise in Incidence of Blue Ear Pig Disease

91WE0448 London *THE DAILY TELEGRAPH*  
in English 26 Jun 91 p 20

[Article by David Brown]

[Text] Blue ear pig disease spread to Norfolk yesterday when a farm at Shelton, about 10 miles south of Norwich, was placed under restriction by the Ministry of Agriculture.

The suspected outbreak of the disease, which causes sows to abort and deaths among new-born piglets, takes the number of farms under Ministry health and hygiene controls to 22 since the first suspected outbreak towards the end of May.

Ministry officials said last night that the farm at Shelton had probably been infected by breeding pigs received from premises already affected by the disease in Humberside where 17 incidents have been recorded.

Signs of the disease were detected during routine checks by Ministry vets who have been tracing all connections with piggeries originally hit in Humberside.

The area contains one of Britain's biggest concentrations of intensive pig farms where about 1.6 million breeding sows are at risk.

Apart from the outbreak in Norfolk, others include two in County Durham, one in North Yorkshire and one in Warwickshire, only 20 miles from the National Agricultural Centre at Stoneleigh where the Royal Show will be held next week.

Six rare pigs, one Tamworth, four Gloucester Old Spot sows and a boar, have been removed from the free-range children's farm complex at the Royal showground and sent to a new home at Moor Park School, near Ludlow, Shropshire.

The Royal Agricultural Society of England denies that they have been evacuated to prevent the disease spreading to the showground.

Blue ear disease, which has affected more than 1,300 farms in Holland, Germany and other European countries, was first reported in Britain on two farms at Broughton and Burstwick, Humberside, on 24 May.

With the latest outbreak, the fears of intensive pig farmers will be renewed. Once disease enters the confines of huge modern pig houses with their high-performance hybrid breeding herds, it can spread like wildfire, causing heavy casualties and serious financial losses.

Blue ear disease is believed to be a virus which affect only pigs. People are not at risk, the Ministry of Agriculture says.

"We have no plans to introduce a compulsory slaughter programme to control, the disease," a spokesman said.

The National Farmers' Union has urged all farmers to help prevent the disease spreading.

Pig farms are keeping all visitors to a minimum. Pig movements between farms have largely stopped and agricultural shows, including next week's Royal, have scrapped their live pig classes.

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