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Epidemiology

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AIDS STATISTICS—Aids is on the increase among cocaine addicts, because addicts will do anything—including homosexuality and prostitution—for a "hit."

"Evidence," said Dr Perry Gomez Thursday, "is suggesting that cocaine addiction is playing a role in the spread of this illness here, because a cocaine addict, a freebasing addict, who has to get his hit, will do anything to get money to get a hit and that anything includes homosexuality and prostitution."

Dr Gomez addressed the Rotary Club of West Nassau today on the problem of "AIDS" in the Bahamas. "Last year we started screening for AIDS in October," said Dr Gomez. "The results for 1985 were 56 victims. In the first three months of this year there were 52 victims—32 of them were Bahamians and 20 Haitians. Of the Bahamians there were 19 males and 13 females. Of the Haitians there were 12 males and eight females." [Excerpt] [Nassau THE TRIBUNE in English 9 May 86 pp 1, 4] /9274

CSO: 5440/087
BRIEFS

22 AIDS DEATHS—According to a WHO report, 22 people have died of AIDS in the state of Sao Paulo since June 1983. This state has registered the most cases of AIDS in the country: 520 since July 1982. The state of Rio de Janeiro is second with 103 cases out of which 71 people died. According to Brazilian Health Ministry statistics, the group most affected by AIDS are homosexuals or bisexuals (50 percent of cases) and second are hemophiliacs.

[Summary] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 4 Jun 86 p 9 PY]

CSO: 5400/2070
THE Ministry of Health has worked out a programme to fight tuberculosis nationwide. The ministry's move was triggered by the rising incidence of the disease during the last few years. The programme aims at increasing the number of beds at the various clinics treating respiratory diseases so that every clinic serves 250,000 people.

The programme includes free treatment for TB patients. X-ray machines and other equipment needed to diagnose this disease are to be made available, especially in rural areas. The programme will also help develop the prophylactic services to fight TB.

A number of rural health units will be furnished with the necessary equipment and drugs needed for chest diseases other than tuberculosis. The laboratories of the TB clinics will also be modernised to help develop their preventive role through the vaccination of citizens with the B.C.G. vaccine.

The nationwide tuberculosis campaign will focus on examining citizens suffering from chest diseases and relatives of patients suffering from TB, as well as people living in communities where the incidence of the disease is high. — GSS
One-third of the total number of people suffering from cancer of the bladder in Egypt have been previously infected with a form of bilharzia. In addition to bladder cancer, other complications, of bilharzia include gall stones, the enlargement of the spleen and cirrhosis and enlargement of the liver.

The results of a comprehensive study undertaken by the Field and Applied Research Centre, affiliated with the Ministry of Health, in 70 villages located throughout eight governorates in Lower Egypt, indicate that in 1960, the percentage of people afflicted with intestinal bilharzia was nine per cent and those suffering from urinary bilharzia was 60 per cent. In 1977, the figures were 41 per cent and 27 per cent, respectively, and, during the last few years, the prevalence of intestinal bilharzia has increased to 61 per cent and urinary bilharzia has decreased to 25 per cent.

Dr. Mohamed El-Alami, Chairman of the Centre, said that the great reduction in the incidence of urinary bilharzia is due to the increased use of insecticides and phosphoric chemicals which seep into water sources and kill the hookworms and larvae which transmit urinary bilharzia.

Dr. El-Alami added that a section of the survey was devoted to determining the extent of the prevalence of hookworms and their larvae in 94 kilometres of waterways in the areas and found a vast increase in the number of these disease-transmitting parasites.

The Ministry of Health has prepared a comprehensive plan to combat the spread of bilharzia throughout the country and has obtained the funds necessary to finance the project from the International Bank for Reconstruction and Development (IBRD) and the African Bank for Development. Initially, the project will be undertaken in governorates in Upper Egypt and the Suez Canal and certain governorates in Lower Egypt. GSS
BRIEFS

IMMUNIZATION PROGRAM—A seven-member medical team from the Ministry of Health in Region Six will today travel up the Canje Creek to launch an immunisation programme for school children, farmers and residents of the riverain district. The health team, which will be led by Regional Health Officer, Dr. F. Florendo, will also visit Berbice River communities to continue the immunisation exercise. The programme will start at Takuba and Barakara up the Canje Creek on the first day and then move to the Berbice River communities where the health team will spend three days giving inoculation against tetanus and polio. During the visits the team will also hold discussions with residents and plan medical programmes for each community. [Text] [Georgetown GUYANA CHRONICLE in English 22 Apr 86 p 5]

CSO: 5440/088
QUESTION OF BEST HEPATITIS VACCINE UNDER REVIEW

Hong Kong SUNDAY MORNING POST in English 27 Apr 86 p 9

[Article by Vicky Wong]

HONGKONG should consider switching to a different hepatitis B vaccine for immunisation since the effectiveness of the product now used is in doubt in the light of recent overseas findings.

This is the opinion of a scientist from the vaccine division of the world-renowned Pasteur Institute in France who was in Hongkong last week to organise the territory's first international symposium on hepatitis B, set for June.

The institute, a research organisation run by the French Government, developed the first hepatitis B vaccine to be marketed in the world and was also the first to identify the AIDS virus some years ago.

Hongkong spends $3.5 million a year to conduct a mass screening and immunisation programme at all government and subsidised hospitals and clinics to identify and vaccinate newborn infants at risk of contracting hepatitis B from their carrier mothers.

Hepatitis B, a viral disease which attacks the liver, poses a serious health threat in Hongkong, where 50 per cent or more of the population either suffer from or have been infected by the virus.

Studies show that 11 per cent of all women who give birth here are carriers of hepatitis B. Of about 80,000 babies born every year, up to about 8,000 can be expected to contract the infection before they are five months old. Most will become carriers in their turn, spreading the disease further through the community.

More disturbing is that 25 per cent of these carriers can be expected to die from liver disease or cancer later in life. Hepatitis B accounts for 80 per cent of the incidence of liver cancer and two-thirds of the cases of cirrhosis of the liver in Hongkong — both major killers here.

The mass immunisation programme was started in 1983 in a bid to stop the chain of transmission to the newborn at a time when they are most vulnerable to infection.

At present, the vaccine used in Hongkong's public immunisation programme comes from the American drug firm Merck Sharp and Dohme (MSD). Its major competitor is another vaccine developed by the Pasteur Institute which is also licensed for sale here, although not used by the Government.

A third vaccine, from the Dutch Red Cross, has become commercially available in the Netherlands and in Thailand for a few months and has not been licensed for use here.

According to Dr Nora el Goulli from the vaccine division of the Pasteur Institute, many countries in Europe which were using the MSD vaccine are now considering switching to the French one following disturbing findings on the efficacy of the American product from several international studies.

"At the beginning," the MSD and Pasteur Institute vaccines showed similar results, but you have to have long experience to know what is going to be effective," she said. "Ten years of clinical experience have shown consistent failures with the MSD vaccine and no such failures with the French one."

Among the studies Dr el Goulli cited is one conducted by America's Centre for Disease Control in Atlanta. This showed that the persistence of antibodies (substances formed in the body to combat hepatitis B as a result of vaccination) in healthy adults given the American vaccine did not last more than three years for half of those immunised. Some of those vaccinated also subsequently became infected with hepatitis B.

Another study on haemodialysis patients followed 500 patients vaccinated with the MSD product and 500 in a control group not given any immunisation for 2½ years. The researchers found the same rate of hepatitis B infection in the control group as in the vaccinated group.

A comparable study done on the French vaccine among haemodialysis patients found that none of them developed the infection.

Another study conducted by independent researchers followed 600 people given the French vaccine and found that 97 per cent still had antibodies six years after immunisation. None developed hepatitis B infection.

"It would be a wise choice for Hongkong to switch from the American to the French vaccine. I'm sure that if Hongkong medical staff have a chance to handle both, they will see for themselves that the French vaccine is more effective. This is what is happening right now in Europe, in Switzerland, Spain and Germany," Dr el Goulli said.

Local health officials, however, are unlikely to switch to the French vaccine based on the limited data currently available.

"There're no plans to consider switching vaccine," a government liver specialist said. "In many ways, the MSD vaccine is superior based on local data, although we do accept the fact it may not be very good in dialysis patients."

\[9274\]

CSO: 5440/086
BRIEFS

AIDS VICTIMS' IDENTITIES—The plight of AIDS carriers heads the list of Legco questions Unofficials plan to put at Wednesday's meeting. Mr Tai Chin-wah will ask what information and assistance the Medical and Health Department gives to families of AIDS victims. Earlier this month the department confirmed there were 53 probable carriers of the acquired immune deficiency syndrome virus in Hongkong, including 15 haemophiliac schoolchildren. The department has pledged to keep the identities of all potential AIDS carriers secret, even from the schools young haemophiliacs are attending. Mr Tai plans a second question on what precautions the department has taken to prevent carriers being identified, citing excessive media interest in the cases of individual AIDS victims. [Excerpt] [Hong Kong SOUTH CHINA MORNING POST in English 19 May 86 p 18] /9274

FIRST CHOLERA REPORT—A 40-year-old man is being treated in a Kowloon Government hospital for cholera—the first case reported this year. The Kun Tong man was admitted on Tuesday with diarrhoea and vomiting. He was confirmed as a cholera case yesterday and is in a fair condition. Officials think the man may have contracted the disease while he was in China recently. Medical and Health Department officials visited the man's home to give his wife and two children a medical examination and preventive drugs. The premises were also disinfected by Urban Services Department staff. The last reported cholera case was in September. A Medical and Health Department spokesman said there was no need to declare Hongkong a cholera-infected area because there was no evidence of it spreading. [Text] [Hong Kong SOUTH CHINA MORNING POST in English 23 May 86 p 1] /9274

CSO: 5450/0148
FIRST CASES OF AIDS REPORTED

Budapest KEPES 7 in Hungarian No 1, 1986 p 8

[Translation by British Embassy, Budapest]

[Text] At the beginning of April there were forty-five patients in Hungary infected by AIDS. 22 of them are children who suffer from hemophilia and have been infected by imported medicines, another 22 homosexual men are registered and a woman who is the partner of a man suffering from hemophilia informed us dr Adam Vase, head of department, Minister of Health. The first patient was discovered at the beginning of last August. Since then Hungary has joined the WHO-centre and we have been obliged to supply them with information on the number of the patients infected by AIDS.

In the Laszlo Hospital a special department was opened for those infected by AIDS. At the moment none of them is in the hospital yet. In the 73 countries providing the world organization data 20,000 patients infected by AIDS have been found and since the recognition of the disease, 1981, half of the patients infected has died. So far nobody has died in Hungary from AIDS; only one man infected by AIDS committed suicide. The ministry has worked out a programme on prevention but the number of patients to be infected by AIDS will be likely to increase.

/12828
CSO: 5400/3022
The Government has formulated a comprehensive national strategy to detect and control acquired immuno-deficiency syndrome (AIDS), the disease that has aroused world-wide concern, reports PTI.

The strategy, which has been formulated following detection of six AIDS cases in Madras, envisages setting up of more than 25 surveillance centres with at least one in each State, Prof. V. Ramalingaswami, director-general of the Indian Council of Medical Research (ICMR) said.

He said the centres were being set up in Chandigarh, Srinagar, Delhi, Shimla, Lucknow, Jaipur, Patna, Calcutta, Guwahati, Shillong, Bhubaneswar, Jabalpur, Bhopal, Ahmedabad, Bombay, Nagpur, Pune, Panaji, Trivandrum, Madras, Vellore, Pondicherry, Hyderabad and Bangalore. Some of these have already been started.

In addition, Prof Ramalingaswami said four referral centres, two in Delhi and one each in Vellore and Pune, were also being set up to confirm the findings of the surveillance centres.

The referral centre would be having enzyme-linked immuno solvent assay facilities which is sensitive test for detecting AIDS antibodies, he said.

He said the symptoms of AIDS were swollen glands of pink or purple colour, flat or raised blotches or pumps inside the mouth, nose and eyelids, unexpected weight loss of more than 10 pounds in less than two months, unexplained fever for more than a week, night sweat, persistent dry cough and diarrhoea which is not explained by other causes.

Prof. Ramalingaswami said the government had also decided to supply imported kits to all states for detecting AIDS.

He said training would be given to medical officers and laboratory personnel. Microbiologists would be trained to carry out enzyme-linked, solvent assay, (ELISA) test at the National Institute of Virology at Pune and at the Vellore 'CMC' Hospital. Scientists would also be sent abroad for training in a more refined test, called "Western Blot."

ICMR deputy director-general Dr S P Tripathi, said the council had set up a cell at the Madras Medical College (MMC), where the first cases of 'AIDS' in India were detected. The MMC would soon develop into a major centre, he said.

Dr Tripathi said a national campaign to create public awareness of the disease would be launched by the Central Health Education Bureau. The National Institute of Communicable Disease and the ICMR had also brought out booklets on the subject.

As both AIDS and Hepatitis are transmitted the same methods, Hepatitis-B testing should be mandatory for blood donors as such testing prove useful for AIDS tests, he said.

The ICMR director-general said the government was also considering a proposal that all blood donations should be screened for AIDS as well as Hepatitis-B virus.

Dr Pradeep Seth, associate professor, Department of Microbiology, All India Institute of Medical Sciences said that the institute was examining the AIDS virus in the six women of Tamilnadu to find out whether they had the American Type AIDS virus or African type AIDS virus, though both belong to the same family.

Dr Seth said "It is the virtual certainty of death from AIDS, once the syndrome has fully developed, that makes the disease so dreaded along with the uncertainty of nearly everything else about it."

He was of the view that Indian conditions may promote the disease. Among these are the presence of faeces in drinking water, the use and reuse of unsterilized needles in many small clinics.

Referring to various AIDS antibodies tests. Dr Seth said the tests have created a few problems of their own. Because they merely detect the presence of antibodies to AIDS (which proves only that exposure has occurred) they cannot determine if a person currently has the live virus, or if he is capable of spreading it or if he is likely to develop the disease.
Surveillance in Pondicherry

Madras THE HINDU in English 22 May 86 p 12

[Text]

PONDICHERRY, May 21.
The Health Department has launched extensive surveillance of "areas prone to AIDS" in the Union territory.
The Department has sent blood samples of 50 persons to the CMC Hospital, Vellore, for investigation since the beginning of this month.

An official spokesman said the blood smears of professional blood donors and inmates of some places had been specifically taken up for investigation. The Pondicherry administration has requested the Centre to place necessary equipment and kits to JIPMER to investigate AIDS cases.

Assam Alert

New Delhi PATRIOT in English 12 May 86 p 6

[Text]

Guwahati, May 11 (PTI)—All the medical college hospitals in Assam and the State Health Directorate have been alerted by the Union Health Ministry to be on the look out for the carriers of the newest disease acquired immune deficiency syndrome (AIDS), according to official sources here.

They said imported kits for the necessary blood tests of persons suspected to be carrying the AIDS virus would soon be flown to these medical college hospitals by the Union Health Ministry.

Describing these steps as precautionary measures in the wake of the suspected incidents of few AIDS cases in Tamilnadu, the sources said the Ministry had asked the State Health Directorate to periodically screen the blood as also be contracted through the blood transfusions, where the donor may be an unsuspected carrier of the virus.

Homosexuals and prostitutes are among suspected to be the major carriers of the virus of AIDS.

The sources said the Union Health Ministry, in concert with the Indian Council of Medical Research, would set up a few surveillance stations in the principal towns of the north east to monitor the steps to combat the AIDS as well as to educate the masses on the pitfalls of this disease.
Importance of Vigilance

Calcutta THE SUNDAY STATESMAN in English 11 May 86 p 8

[Editorial]

With the detection of six cases in Tamil Nadu, India has joined the growing list of countries no longer immune to AIDS (Acquired Immune Deficiency Syndrome), the new and fatal disease that has claimed 22,000 victims worldwide since 1981. There is little comfort in these six cases being identified only by the presence of antibodies to the AIDS virus: even the partial reassurance that they were mere carriers and not actual sufferers seems to have disappeared since two of the women are said to be developing the symptoms of the disease itself. Moreover, the incubation period of the virus could be as long as five years. Nor is there any reason to believe that just because cases have been found only in Tamil Nadu, the other States are safe; it may be just that the watch in Tamil Nadu has been more thorough. Also decisive has been the help of a microbiologist there who happened to be doing her doctoral thesis on the subject: she went out in search of cases rather than confining investigation to outpatients as at other AIDS detection centres in the country. Detection is hampered by the fact that those at highest risk—prostitutes, persons with sexually transmitted diseases, drug addicts and people with illnesses requiring regular blood transfusion—are also the most resistant to screening.

Tracking down the route through which AIDS entered the country is less important than utmost vigilance in detecting any new cases and an unrelenting educational campaign. The problem in India is compounded by inadequacies in public hygiene and awareness, the poor quality of blood available for transfusion and the socioeconomic conditions that make the general population less resistant to all diseases. A strategy has been worked out by the ICMR with specialized centres and substantial grants for different States and the supply of diagnostic kits which at present have to be imported. The World Health Organization, too, has initiated a series of steps including collaboration centres. A large body of research findings is already available in the West; it is important that such information be made accessible to those monitoring the disease in this country, and the ICMR may have to go beyond the present circulation of brochures to State Governments and hospitals. It is equally important that the public be spared the West's mass hysteria over baseless fears about how the disease is transmitted, so that the watch can be concentrated on the real sources of danger like promiscuity, infected syringes and contaminated blood. High-risk groups may have to be reached by a specially intensified campaign.
CHOLERA, JAUNDICE REPORTED 'RAGING' IN GUJARAT

Calcutta THE TELEGRAPH in English 23 May 86 p 5

[Text]

Ahmedabad, May 22: There has been a sharp increase in the incidence of cases of cholera, jaundice, malaria and guinea-worm diseases in different parts of Gujarat. Among the worst-affected areas are Gandhinagar, Ahmedabad and Baroda. The state capital has been declared malaria and jaundice infected. The state health minister, Mr Vallabhbhai Patel, said seven out of the state's 19 districts have been hit by guinea-worm diseases.

Four persons have died of gastroenteritis in Sardarnagar, a suburb of Ahmedabad, and three have died of cholera. In all 53 cases of gastroenteritis were detected in this suburb. Nearly 600 residents of Sardarnagar have been inoculated against cholera.

The BJP has alleged that the outbreak of the diseases is the result of the municipal corporation supplying contaminated water. At one of the corporation's meetings, two BJP councillors, Mr Ajay Patel and Mr Jayin Parikh, tried to make the mayor, Mr Jethalal Parmar, drink polluted water they had brought to the meeting. The BJP leader in the corporation, Mr Jayendra Pandit, alleged that Kiosks in the Manek Chowk area were serving water collected from nearby urinals.

Out of a total of 70 lakh domestic pipelines, nearly a lakh of them were laid about 15 years ago. It is leakage into these water mains that leads to contamination. The corporation has offered to change the pipelines if the householders provided the pipes. The corporation will bear the labour cost.

Meanwhile, the drought-hit villagers of Saurashtra are suffering from different diseases, including skin infection, according to Mr Dwariknath Rath, convener of Dushkal Pratirodh which sponsored the team of doctors. Children and adults were being treated free at several construction sites.

Jaundice victims move court

Patna, May 22 (PTI): Three jaundice victims in Bihar have filed a writ petition at the Patna high court asserting their right to get pure drinking water. The petition was filed on their behalf by the Council for Protection of Public Rights and Welfare. This is the first case of its kind in the state.

Admitting the writ petition, Justice Birendra Prasad Singh and Justice B.P. Grijaghey, yesterday, directed the state and the Patna Municipal Corporation to file an affidavit stating steps they had taken to contain the disease. The case will come up for hearing on June 9.
Infective and parasitic diseases like malaria, tuberculosis, tetanus, enteritis and other diarrheal diseases have contributed maximum to morbidity and deaths in India, according to a study by National Institute of Health and Family Welfare in Delhi, reports PTI.

Infective and parasitic disease group was the leading one, contributing 26.2 per cent of total morbidity followed by diseases of respiratory system (16.9) and digestive system (11.3), the study pertaining to the period 1974-77 said.

So far as mortality pattern is concerned, infective and parasitic disease group contributed to one-third of total deaths followed by diseases of circulatory system (11.7 per cent) and diseases relating to perinatal mortality (10 per cent).

The study seeks to provide trends on the morbidity and mortality statistics in order to help planners and administrators to chalk out health strategies.

Out of total deaths reported, 68.1 per cent were males. Younger age group, less than 15 years of age, particularly in the neo-natal period, recorded 41.3 per cent deaths, the study said.

More than half of total morbidity in India was contributed by infective and parasitic diseases, and diseases of respiratory and digestive system, the study concludes.
KALA-AZAR DEATHS—Calcutta, 24 May—Three persons have died of kala-azar during the last month and 12 others suffering from it have been admitted to the School of Tropical Medicine, according to official sources. The disease is contracted from the bite of the sandfly and its symptoms are fever, anaemia and enlargement of the liver and spleen. The state government had admitted that the disease had reappeared in the Sunderbans area after it was officially eradicated in the early 70's. An expert team headed by Dr K. K. Mullick, professor of tropical medicine, visited Kuber Bheri, East and West Kherjurberia and Danikhali in the area. A survey of 70 patients indicated the presence of LD bodies, believed to be the cause of the disease—also known as Dumdum fever—in 10 cases. The team has submitted a report on its findings to the state government. [Text] [By Shyamal Dutt] [Calcutta THE TELEGRAPH in English 25 May 86 p 1] /9274

CHILDREN'S MYSTERY DISEASE—Bhind (M.P.)—May 15—Thirteen children have died and 25 taken seriously ill due to a mysterious disease at Gahwat village under Umari police station in Bhind district of Madhya Pradesh during the past week, reports UNI. According to reports received here, all the victims were below 11 years. The condition of the affected children was stated to be serious and two girls had already gone blind. [Text] [Calcutta THE STATESMAN in English 16 May 86 p 1] /9274

LEPROSY AMONG CHILDREN—Madras—The incidence of leprosy among children below 15 years of age, at four per 1,000 population, is quite high. The disease makes no distinction between children of the rich and the poor, according to Dr M. S. Nilakanta Rao, a WHO consultant on leprosy to the government of India. A survey of a number of schools in Bangalore over a few years has shown that children from the upper economic strata were as vulnerable to the disease as children from the lower economic strata, he added. Speaking on "leprosy and children" at the three-day regional conference for leprosy awareness, sponsored by the UNICEF and organised by the citizen's forum, Dr Rao said the extent of leprosy in children was a sensitive index to the epidemic-logical situation of leprosy in the country. Sixty-two per cent of the cases of leprosy among children occurred in the south (including Maharashtra and parts of Orissa). The sex ratio among children was more or less the same for boys and girls (91:1), unlike in adults where it was 2:1 with males preponderating. [Text] [Bombay THE TIMES OF INDIA in English 11 May 86 p 8] /9274

CSO: 5450/0146
PAPER REPORTS CHOLERA OUTBREAK—Ten people have been killed by cholera over the last 2 weeks. Hospital sources of Port Reitz said yesterday that there were 50 cases of cholera there and that more cases were still expected. The sources said one victim died yesterday and two others last week. He said most of the victims came from Magongo and a few from Kisauni and Kongowea. "The situation is worrying. We have 50 cholera cases here, and we are bracing for more," sources said. The outbreak of the disease comes in the wake of the holy month of Ramadhan, which is expected to end today. Mombasa mayor, Councillor Ahmed Mwidani, last week said cleanliness of the town had deteriorated. Early last month, the Mombasa Municipal Council had placed its cholera surveillance and sanitary teams on the alert. /Text/ /Nairobi THE STANDARD in English 9 Jun 86 p 1 EA/ 12228

CSO: 5400/135
PROBLEMS OF MANAGUA HOSPITALS DESCRIBED

18.6 Percent Infant Mortality

Managua BARRICADA in Spanish 23 Apr 86 pp 1, 7

[Article by Elsa Gomez]

[Text] Out of every one thousand live-born babies, 18.6 percent die of various causes at the Bertha Calderon Hospital, where the installed capacity for care, in physical and human terms, is minimal in comparison to the extraordinary demand.

The Women's Hospital, as it is also called, is supersaturated. It is no accident that 18 hours after giving birth, each mother has to leave the facility. Nor is it by chance that there are two or even three babies in each crib.

The 45 deliveries and 6 periosteotomies every day and 2,567 surgical operations in the past 3 months represent an overload of work in terms of the capacity of the hospital, which is naturally reflected in deterioration in the quality of service.

The situation is a dramatic one, and even worse, if to these problems we add the brutal effects of a shameful lack of labor discipline, reflected for example in the fact that very regularly, every day, 60 individuals fail to report for work.

Absenteeism, negligence and indifference are most serious in the sector responsible for the facility's hygiene, which presents a deplorable picture in this connection, also affecting the health of the patients.

It is not without reason that the director of the Bertha Calderon Hospital, Dr Jorge Orochena, says bluntly: "This is a hospital which is being ruined by excessive demands and which is on the brink of collapse." But even so, there are some possibilities for resolving the problems.

Every day, more than a thousand individuals move through the halls of the Bertha Calderon Hospital—patients, companions, medical and paramedical personnel—despite the fact that this structure was designed to accommodate
fewer than half that number. And although the demand for outpatient consultations, emergency care and hospitalization is increasing, the capacity for medical care remains the same.

The support personnel entrusted with the tasks of hospital maintenance and hygiene hold the record for absenteeism, with 60 workers failing to appear every day, while 13 percent of the general personnel are drawing compensation and another 11 percent are on vacation. “About 49 percent of the hospital personnel is not on the premises at any given moment, and so we can only rely on 51 percent to do the work,” the director, Dr Jorge Orochena, said in a dramatic description of the situation.

The popular demand for hospital care is multiplying. On the one hand, there are pregnant women on the point of delivery and others with symptoms of imminent miscarriage, while those who have just given birth are required to leave the hospital within 18 hours if there have been no complications. Also, there are the clients of the outpatient services offered in the specialties of this facility—gynecology-obstetrics and the subspecialties of human fertility and oncology, ophthalmology and neonatal care, the latter for newborn babies exclusively.

“This is a hospital being ruined by the excessive demand and on the point of disintegration,” Dr Orochena says.

Effect on Patients

Out of every thousand live births, 18.6 percent of the babies die due to such various causes as asphyxia, hypoxia (lack of oxygen in the cells), aspiration of meconial fluid (fetal suffocation), intrahospital infections, such as meningitis, diarrhea and septicemia (generalized infection in the blood), among others.

“The conditions required in a neonatal department, such as space, environmental epidemiological hygiene measures, and even strict discipline as to the hygiene habits of the personnel, are lacking,” the director notes.

There is a very limited ward for the intensive care of newborns, with room for only seven incubators. Some 43 cribs and incubators are distributed among the wards for intermediate and minimal care, and the observation ward for newborns has 34 cribs, usually accommodating two babies each.

Recovery is affected by such facilities as the operating rooms, for example, when doctors postpone surgery for lack of properly sterilized materials and equipment. Here the main problem is the “greens,” in other words the surgical gowns, caps, masks and shoes.

The average of 45 deliveries per day, about 6 periosteotomies (uterine curettages) per day and a total of 2,567 surgical operations in the past 3 months have increased the demand for hospital clothing, which, in addition, is in short supply. The problem is made more acute by the limited capacity of the laundry and uniform department of the hospital.
It is estimated that hospital garments are washed up to four times every day, because of the constant flow of blood, the characteristic odor of which even hangs in the atmosphere at the facility.

It is definitely disagreeable to see women wrapped in hospital sheets stained with blood in the corridors. Included in this picture, which is moreover obviously unaesthetic, are beds covered only with plastic covers, on which up to three newborns ready to leave the hospital lie side by side, to be replaced by three others almost as soon as the space is vacated.

Is There Mistreatment?

A woman from Ciudad Sandino admitted with symptoms of imminent miscarriage reported that while she lay shivering with chills following a fever in the emergency ward at about 11 am on Sunday, the 19th, a doctor was reading a magazine and ignored her, while a young woman 7 months along told how the doctor asked her if she was pregnant.

Maria Concepcion Chavez, 45, who had come from Los Brasiles to be hospitalized because of a uterine tumor which had been causing hemorrhaging since last November, fainted on a bench in the emergency ward.

Antonia Navarro Cisneros, 18, from the Isaias Gomez district, miscarried 2 days after an emergency visit to the hospital, where she was given "three tablets" and told by the doctor to go home and rest.

"There is no verbal mistreatment, but the patient despairs due to the length of time she must wait and the nature of the care received at the facility, because of our limitations," the administrator, Hilcia Bello Parrales, said.

The unit has 22 gynecologist-obstetricians, 3 oncologists, 3 neonatal specialists, 3 internists, 5 ophthalmologists, 5 anesthesiologists, 2 pathologists, a radiologist, 35 resident physicians and 44 interns. Other personnel includes 779 workers, with 56 graduate nurses and 145 nurses' aides, including 58 new employees in addition to the personnel in service prior to 1985.

The number of medical hours worked dropped in the first quarter of 1986 because three ophthalmologists and three gynecologist-obstetricians resigned during the past year. The estimated totals are 6,519 medical hours worked in 1985, and 5,023 in the first quarter of 1986. According to the international norm, a doctor should work 2,000 hours annually.

Every month, two medical specialists are on vacation, and it is therefore estimated that there is one doctor for every ten hospital beds.

In emergency situations, the personnel are distributed among three shifts. In the morning there are a chief of service, three base-level doctors, two residents, two interns, an emergency chief, a graduate nurse and six nurses' aides on duty.
In the afternoon, there are a base-level physician, one resident and one intern on duty, and at night, one resident physician and an intern. The residents are those completing their 3 years of training in their specialty, and the interns are the doctors in their last years at the Faculty of Medicine, on periodic rotation through each hospital unit.

"I do not regard it as necessary to increase the personnel, but there is a need to reduce the pressure of demand on this hospital," Dr Orochena notes.

Hospital Production

According to international indices, the average stay per hospital bed is 3 to 4 days in gynecological-obstetrical hospitals. At the Bertha Calderon Hospital, the average is 2.6 days. The internationally normed bed use index is 75 to 80 patients per 100 hospital beds, while here it reaches a maximum of 79.7.

Also, according to the norm for turnover per hospital bed, 30 to 35 patients should utilize a hospital bed each year. At the Bertha Calderon Hospital, 23 patients utilized each bed in 3 months' time. The time which elapses between the discharge of a patient and the assignment of a new occupant to a bed should be 1 to 2 days, while at the Women's Hospital in Nicaragua it is less than 24 hours.

In 1985, this facility had 250 beds, and the number has been increased this year to 280, in absolute figures. This does not take into account the factors affecting the use of bed resources, which in real figures total 338, plus those not counted, which are located in the adult observation ward, the newborn observation ward, and the labor and delivery rooms.

Patient costs in terms of bed-days, including the salaries of doctors, residents, interns, nurses, aides, three meals a day, and the cost of support personnel and others, is calculated at more than 9,000 cordobas.

Perinatal Deaths

Perinatal death is second only to diarrhea in terms of the number of newborns lost in Region III. This has to do with all of the work pertaining to pregnancy and childbirth. According to Dr Orochena, effective coverage in terms of prenatal checks would to a great extent avoid perinatal deaths, both before and after birth. Prenatal checks, which are the responsibility of the departments of a health center, could detect a mother's problems, so that she would be referred to High Risk Obstetrics (ARO for determination of possible complications--toxemia, high blood pressure, prediabetic symptoms, renal infection, cardiac disorders, and even fetal position and multiple pregnancy. Once the problems of the mother have been identified, she is referred to the proper specialist, either at the health center or the hospital.

Such a background file gives the doctor better resources for use at the time of delivery, in order to determine the need for a Cesarean section or to take the steps necessary to safeguard the life of the mother and avoid fetal suffocation.
"There are very few patients who come to this hospital with medical records prepared by the health center," Dr Orochena noted. He explained that the risk of death is higher for the newborn than the mother. In the first quarter of 1985, three maternal deaths and one resulting from a tumor occurred at the facility, whereas there have been no deaths during this quarter.

Solutions Needed

According to the director of this center, there can be no solution by special departments, since all of the work of the hospital is integrated, and the greatest damage is being done to the service provided by the excessive demand, lack of labor discipline and absenteeism.

This year, the hospital has lost three specialists, including one who resigned and two on scholarships who have left the country. Unjustified absenteeism has recently been penalized by disciplinary measures. Seven members of the nursing corps and support personnel were dismissed, five were required to sign letters of commitment, and 30 received warnings.

"This is a dirty hospital, due to shortcomings in the support services, such as the laundry, cleaning staff and nursing corps, including stretcher-bearers, clinical secretaries, nursemaids, aides and graduate nurses. Unjustified absences resulted in the loss of 327 man-days, the majority among the nursing staff, which had 131 absences, representing 235 work days lost," the doctor noted.

Also, he went on to say "The ophthalmological specialty should be discontinued at this hospital, because it competes in terms of demand for consultations per patient with gynecology-obstetrics." Orochena recalled that 3 years ago, when it was decided that this facility would serve as a hospital treating women's diseases exclusively, the expansion of its facilities and the removal of the ophthalmological specialty were promised.

The unit has four operating theatres for major surgery, one for minor or emergency surgery and one for minor surgery and oncological radiation (treatment of cancer in women). The same operating rooms are shared for surgery in the specialty dealing with diseases of the eye.

Opinions of the Staff

Luisa Navarrete Espinoza, who is in charge of the laundry and uniform department, says that "We are rather short of personnel, mainly because of the men who have left for military service." There are also those who resign because of the wages paid and the sanitary conditions prevailing in this work.

This department has machinery transferred from the old El Retiro Hospital. The humidity in the premises and the steady rhythm of work without the required maintenance have caused the majority of the machines to deteriorate. There is a new washing machine installed a year ago, but it is not operating due to problems with the electrical system.
Aura Gonzalez, who has worked in this department for 11 years, notes that she feels discouraged by the low wages she receives based on her SNOTS classification. "We do not like the pay, for even a stretcher-bearer earns more than we do. The last chief had no interest in our evaluations and did us a great deal of harm," she says.

Maria Elena Lopez, a cleaning woman, says that the equipment and materials provided for cleaning the hospital are inadequate. "I am going to ask for transfer to laundry," she said.

Julio Miranda, in charge of maintenance, crossed his arms and said: "We need materials in order to work. It is so difficult for us to buy what we need at the hardware stores, and even more so on the central level of the MINSA." The greatest demand for repairs pertains to the air conditioning and lighting systems.

The hospital has currently been allocated 19 million cordobas for general repairs, a figure channeled through Health Region III, which will negotiate the contracts with a Ministry of Construction enterprise. "They came to evaluate repairs 3 months ago, but we still have not had their response," Hilcia Bello, the hospital administrator, said.

New Stocks of Medicines and Materials

The chief of the hospital pharmacy, Eloisa Corrales, who was somewhat reluctant to provide the requested figures on the supplies of medicines, would only speak about the shortage of dextrose serum, the supply of which has been exhausted, and other products such as adriamycin and V-fluorouracil, used in oncological treatment and currently entirely out of stock, and vitamin K for newborn infants.

Concerning replacement stocks of materials, Dr Orochena said they are well provided, thanks to the aid the facility receives from Project Mother. Currently, the hospital has a shortage of sanitary napkins, for which washable cloths are being substituted.

In addition to hospital equipment, including the new washing machines and dryer with a greater capacity, equivalent to two of the present machines, Project Mother has provided an ambulance, and it is continuing to study the needs of the facility.

This project, which was launched a year ago, has as its slogan "a million dollars for Bertha Calderon." It also offers training courses for medical-technical personnel and is building an infant shelter for the children of hospital workers.

Reducing Pressure on the Hospital

The Bertha Calderon Hospital, which also is a teaching facility for medical aides, might be provided some respite if maternity care could be to some extent channeled to other hospital units. If this were done, the people too would benefit, being spared the need to travel long distances to reach the
specialized center, since it is expected that there will be 46,000 pregnant women in Managua this year. The Bertha Calderon and Velez Paiz Hospitals accommodate 53 percent of the population, which means that 47 percent receive care at private centers or at home.

The proposed transfer of gynecological-obstetrical services to other hospitals has already been studied on the pertinent levels at the Ministry of Health.

"These studies have already been discussed on the central level and at the Ministry as well, but the final decision on the reorganization of the services has not been made. In our view, this would be the solution to the problem of relieving the pressure on Bertha Calderon," the director of the facility, Jorge Orochena, said in conclusion.

Indiscipline, Absenteeism

Managua BARRICADA in Spanish 26 Apr 86 p 8

[Article by Elsa Gomez]

[Text] The Velez Paiz Maternity-Infant Hospital is not even a shadow of what it was until the end of 1985. Thus far this year, it is estimated that the improvement in its infrastructure, patient care and interhospital human relations comes to more than 70 percent, but in the general opinion of the personnel, the problems of lack of labor discipline and absenteeism remain to be overcome.

All of the indices show that the nursing department accounts for the highest percentage of these factors, which have a direct and adverse effect on the health of the patients. Some 30 percent of those employed here come to work late; daily absenteeism is at 3 percent, and it increases to 13 percent on some shifts, mainly on weekends.

Of the 800 hospital workers, 262 are included in the nursing corps (graduate nurses, nurses' aides, nursemaids, secretaries, stretcher-bearers and medical-technical personnel). About half have worked for more than 30 years; 18 graduate nurses hold administrative posts; 7 of the auxiliary personnel are approaching retirement; about 30 persons are drawing compensation every month; and in the first quarter of this year, 3 persons resigned.

This facility provides orthopedic, surgical, pediatric and gynecological-obstetrical services (supporting the Bertha Calderon Hospital), as well as several subspecialties--infant psychiatry, neonatal care and pediatric odontology. Because of the shortage of nursing personnel, there are 30 persons rotating on 3 24-hour shifts, and only 4 wards have been given priority for the continuing use of this skilled personnel. They are the intensive care, emergency, neonatal and labor and delivery departments.

Only 80 percent of the 140 nurses' aides report regularly for their shifts. Although the priority departments require at least five persons each, only two or three are on duty, including a graduate nurse, while the maternity, recovery, and pediatrics (including nursing mothers, school-age children,
infectious diseases, isolation of newborns and others, emergency treatment for adults and pediatric surgery) departments have only nurses' aides on duty.

In the burn ward, nurses' aide Yolanda Vilchez explained that her work is bathing the patients, giving treatment, updating medical orders, prescribing diets and cleaning the unit.

"One day a short time ago, I had to bathe 22 burn patients. This is a service mother-companions are allowed to provide," she said.

Ladies in White

This picture of the nurse, moving tirelessly through the corridors of the hospital, offering a smile or a word of encouragement to the ailing patient 24 hours a day, needs refurbishing. Sandino Arce, head of the nursing department at the Velez Paiz Hospital, says that apart from the shortcomings in the wage scale, there are inadequacies in the professional training at school.

"Discipline and human sensitivity are among the main requirements for nursing. The new generation must take up this challenge unselfishly and make a complete commitment to the profession. One cannot abandon a patient because the shift has ended, because the work here is with the lives of human beings," she said.

She admitted that there are shortcomings and weaknesses which need to be overcome. In this connection she mentioned the establishment of an interhospital disciplinary committee, made up of representatives of the administration, trade union, mass organizations, section heads and party (CBS). "We will reestablish our hospital image," this nurse said enthusiastically.

In order to do so, some checks have been established through the cards recording the arrival of personnel for work, which are examined by the controller's office, calls for personal attention, the requirement that a letter of commitment be signed, and dismissal. This last measure is applied to almost no one because of the paternalism still prevailing in the union, as could be seen in the case of the two nurses reinstated on presentation, 3 weeks after dismissal, of compensation vouchers.

The epidemic of absenteeism among the personnel is reflected in poor patient care, if we take into account the fact that in the month of March alone, 1,181 patients were admitted, and there was a daily average of 41.2 patients per bed.

Among the presumed reasons for absenteeism are night watches or shifts and family problems. Night watches, as provided in the FETSALUD-MINSA agreement, are limited to seven per month, with 25 percent overtime pay per shift. This supplement began to be paid on 1 March of this year.

A wage increase was based on the timely review by the SNOTS, since this occupation had been undervalued. For the general nurse, the wage established was 50,550 cordobas, for a unit head 53,400, for a general hospital supervisor 56,250, for social service aides 30,600, and for certified aides 36,300.
"One of the strategies employed by the hospital to reduce absenteeism was the establishment of a CDI under the administration of the nursing department. The Yolanda Mayorga CDI began operation in 1985 with a capacity of 30 infants. However, these quotas, in the vast majority, are utilized for other personnel, and only 0.5 percent for the nurses. Therefore, the possibility of improving the physical conditions in the premises and increasing night shifts is under study.

"Absenteeism directly affects the expert care and attention the patients need and leads to opportunism, with the whole of the work falling to a few individuals," the nursing head said.

The Absentees

A considerable number of the nursing personnel, it is reported, have been repeatedly absent. For example, Lesbia Lopez Aleman, a graduate nurse, was absent 30 times in 1985, as well as five times up until 24 April of this year. Vilma Betancourt, a graduate nurse, was absent 32 times, in all cases without notice, in 1985, with five more absences up until March. Celenia Torres Morales, a surgical technician, was absent eight times from January to March, and Maria Antonia Martinez, a nurses' aide, was absent nine times during the first quarter of the year.

The personnel department at the Velez Paiz Hospital faces serious problems because of the continuing absenteeism. In these first months of the year, more than 3,000 labor days were reported lost by the personnel. This has been the reason that in only 1 month, more than 600,000 cordobas were paid out in benefits.

Silvia Alvarez, in charge of personnel, has expressed the view that although the center allows mother-companions to contribute to meeting the need for more nursing personnel, the care provided by aides is of primary importance to patients, if we realize that their duties include administering injections, medicines and serums, such that the limited personnel must be moving constantly throughout all of the wards at the facility.

Absenteeism is also frequent among the maintenance personnel (cleaning staff) and the CPF (guards), and the facility has had as many as 15 to 20 persons leave without notice in 1 month, as well. "Many do not give notice that they are resigning, but simply stop coming to work," Alvarez said.

In these cases, the parameters are wages and the lack of material supplies and physical safety. On the other hand, these employees are not included in the incentives program set forth in the FETSALUD-MINSA agreement. The immediate filling of all of the hospital personnel vacancies also involves the bureaucratic procedures established on the central level at the MINSA. In this connection, it can take up to 2 or 3 months to obtain the approval of a new contract, or else new personnel cannot be hired until those retiring obtain final approval and are removed from the controller's payroll list.
Production Goals

Although there are serious limitations in human and material resources, the Velez Paiz Hospital did achieve 80 percent of its health production goals in the first quarter of 1986. During this first quarter, the facility was limited by the inadequate periodic renewal of product stocks. Of the 135 products needed, total replacement was provided for only 26 (14.85 percent), with partial restocking for 27 products (20.61 percent) and none for 78 products (64.54 percent).

Among these products, those most urgently needed by the hospital are elastic bandages and suturing thread. Also, the regional Material Technical Supply Department (ATM) is encountering difficulty in meeting 100 percent of the requirements for sanitary and cleaning products and workshop tools. "In one quarter we received only 25 percent of the needed paper supplies, and we have received no explanation as to why there is not even any detergent," Dr Pedro Tijerino, director of the Velez Paiz Hospital, said.

Also, of the 480 medicines required, the stocks of 167, or in other words 35 percent of the total requisitioned, have dropped to zero. Among these products, the director explained, the vitamin K provided to newborns and antibiotics are of priority importance to the facility.

Other Limitations

Because of both the age of the hospital equipment and the constant changes in electrical voltage, the facility is facing the problem of deterioration in the X-ray equipment, centrifugal machines, microscopes and air-conditioning equipment.

This hospital center, at which 311 surgical operations are carried out in a month, has four operating rooms in normal condition. Basically, they need overhead lighting of 12 candle power, only half of which is provided.

Also, 75 percent of the emergency cases coming into the hospital are not treated properly. In the first quarter of the year, 15,110 children were given emergency treatment, as well as 2,500 adults.

Physical Improvements at the Hospital

A series of remodeling and repair projects for the physical installations at the hospital, with priority for the areas directly involved with patient care, have shown the administrative capacity and willingness to work of the administrative and management personnel at the hospital.

This was in fact achieved beginning with the decentralization of the hospital budget by Health Region III and the corresponding funds allocated for repairs, including 5.6 million for the first quarter of the year. "General cleanup and roof repair are of primary importance for this hospital," the administrator, Teresa Urbina, said.
However, the hospital employees recall with concern the day an outbreak of diarrhea among the infants in the nursing infants' ward was reported. "This was due to poor technical procedures on the part of the milk-laboratory personnel. The proper precautions were not taken in terms of sanitary measures, and so we had a critical situation then. However, we overcame it," the director, Pedro Tijerino, noted.

"We dealt with the attitudes of the leading personnel who were seeking ways of avoiding their responsibilities. Our disciplinary measures have even led to the resignation of three section heads. Perhaps it is better thus, because we need personnel with the will to work," the administrator said.

The efforts to improve the quality of care, attacking and correcting the adverse factors and attitudes affecting patients, are filling the personnel with greater optimism. Even if they are willing to put forth more effort, it is also necessary to deal with the shortage of skilled resources, the mechanisms for hiring personnel and the inadequate supplies of medical products and equipment.

300 Million Allocated

Managua LA PRENSA in Spanish 19 Apr 86 p 8

[Text] The Ministry of Health budget for the maintenance of the hospitals in the country, including maintenance of the leading medical teams, comes to 300 million cordobas.

Our sources said that the lack of funds to meet the most minimal needs of the hospitals has been a factor in the very serious deterioration of many of these hospital centers. However, they said, more attention will be devoted to them now.

In the hospitals in Managua, where broken windows, benches for the public in poor condition, filth, inadequate lighting due to the lack of bulbs or fluorescent tubes are visible everywhere, these conditions have not been corrected.

Also, personnel on the medical and paramedical staffs who are members of the FETSALUD have reported that thefts are very frequently committed in the hospital centers in Managua, involving items ranging from small apparatus and surgical instruments to tools and implements, as well as bed linen and other items.

5157
CSO:5400/2063
BRIEFS

RARE DISEASE FOUND IN JEDDAH—Riyadh, 17 May—Two rare medical cases involving two children, who are brothers, were discovered yesterday at the Bakhsh clinics in Jeddah. The symptoms make the skin flabby and inelastic. There are only a few known cases of this affliction throughout the world. The causes of the disease which makes the skin lose is unknown and sometimes the symptoms include loss of capacity to hold the head erect, as is in the case of the two brothers. [Text] [By Na'ela Qesti] [Riyadh RIYADH DAILY in English 18 May 86 p 2] /9274

CSO: 5400/4515
BRIEFS

UNKNOWN VIRUS EPIDEMIC--Freetown, 1 Jun (AFP)—At least 90 people have died in Kenema, 193 miles (328 km) from here by an outbreak (?) of an epidemic disease caused by a virus which is baffling medical authorities. Reports from the area said that some 120 people including children are currently in the Kenema Government Hospital and private clinics where doctors are trying to save their lives. The outbreak, first detected last Tuesday (27 May) but only revealed Sunday, was noticed when more than 40 people were brought to the hospital complaining of stomach troubles, dizziness and vomiting. According to the account, many had died on the way to the hospital while others arrived almost in a coma. Three nurses who were on duty treating incoming victims also caught the disease.

CSO: 5400/137
CHOLERA KILLS 20--Reports from Burao town [NW Somalia] say that over 20 people have died from the killer disease, cholera, in recent weeks. Although special camps have been set up for people suffering from cholera, this quarantine has not stopped the killer disease from spreading into various villages around Burao. The people who have been placed in quarantine are perishing not just because of the cholera but also because of lack of medicine and basic food requirements. The reports from Burao say that many people are fleeing the town in fear of contracting the killer disease. [Text] [(Clandestine) Radio Halgan in Somali to Somalia 1700 GMT 23 May 86 EA] /6662

CSO: 5400/131
KWAZULU FACES MALARIA OUTBREAK--ULUNDI--kwaZulu is facing possibly the worst malaria epidemic in 30 years, says the homeland's Minister of Health, Dr Frank Mdlalose. Addressing the kwaZulu Legislative Assembly, Dr Mdlalose said malaria cases in kwaZulu had increased by 600 percent since 1983, while national malaria statistics last year showed an alarming 780 casualties being reported a month. He said the problem had been aggravated by the introduction of a chloroquine-resistant strain "imported" mainly from Mozambique. Much of kwaZulu north of the Umfolozi River has always been considered malaria endemic, but the disease was now resurfacing in areas such as Hlabisa which had not had an outbreak since 1978. However, Dr Mdlalose said health care in the homeland was being greatly improved, particularly with the growing interdependence between kwaZulu and Natal, which was breaking down the barriers hindering integration of health matters. [Text] [Johannesburg THE STAR in English 28 May 86 p 11] /12379

CSO: 5400/130
REPORTS ON AIDS 'DRAMATIZED'--Kampala, May 30 (AFP)--Uganda's Health Ministry on Thursday accused reporters of dramatizing the situation regarding the occurrence of the Acquired Immune Deficiency Syndrome (AIDS) disease in the country, but admitted 37 people had died from it since the beginning of this year.

Uganda Radio said that most of the confirmed 37 deaths were from the southern districts of Masaka and Rakaiwn where the disease was first reported. According to the radio, the Health Ministry statement said that the AIDS situation was not as bad as had been reported in the press, and accused the press of carrying reports on the disease which had created public panic. Radio said that the greatest causes of death in Uganda were still the preventable diseases like malaria and sleeping sickness, which the government was fighting.

The official NEW VISION newspaper on Wednesday quoted Health Minister Ruhakana Rugunda as saying that AIDS was "widespread" in the Rakai area. The English-language weekly said in its front-page story that the minister had "acknowledged the high prevalence of the deadly AIDS disease in several parts of the country."

[Text] [Paris AFP in English 0801 GMT 30 May 86] /9365

CSO:  5400/138
A man in his 30s has died of AIDS in hospital in Edinburgh, the second death from the disease in the city in 18 months. The man, who has not been named, died earlier this year, but the news was disclosed yesterday.

The death toll from the disease in Scotland is now thought to stand at five, with one death in 1983, two in 1984, and one last year.

Two other men in Lothian have been diagnosed as suffering from the disease.

Both of the men who have died in Edinburgh were homosexuals in their 30s who caught the disease in the U.S. The two men suffering from the disease are also homosexuals in their mid-30s.

A spokesman for Lothian Health Board said yesterday that the two remaining confirmed cases were being treated as out-patients. Their expectation of life was limited because it was not known for anyone diagnosed as having AIDS to survive for longer than about four years after diagnosis.

There is a much larger number of people in Lothian who have been infected with the AIDS virus, but have not contracted the disease. Dr Ray Brettle, consultant physician at Edinburgh's City Hospital diseases unit said that tests on intravenous drug users, homosexuals, and other groups at risk had identified about 300 people who have the AIDS virus.

Dr Brettle said earlier this year that of about 2,000 drug addicts in Edinburgh up to half could be AIDS-virus carriers, and of those about 10 per cent were likely to develop the disease. He estimated that there could be between ten and 20 AIDS patients in the coming year.

Dr Brettle's AIDS screening clinic was dealing with 20 patients a month when it was set up last October, and is now seeing 60 per month.

A spokesman for the Scottish Home and Health Department said that a total of nine cases of AIDS disease had been diagnosed in Scotland. The main groups at risk were homosexual men, intravenous drug users, haemophiliacs who had received contaminated blood products, and the sexual contacts of those groups.

Scotland was now self-sufficient in blood products, all of which were heat-treated to kill the virus.

The Government had begun a publicity campaign in the spring, and leaflets giving advice were being made available to people at risk.

The question of whether clean hypodermic needles should be distributed to drug users was being considered by a committee of specialists set up by the department's chief medical officer. It had not yet been reported.
BRIEFS

TRYPANOSOMIASIS CASES—During the first quarter of the year, 515 new cases of trypanosomiasis were identified in Bas-Zaire, according to the regional inspection statistics of the Public Health Service provided to AZAP on Wednesday. However, no deaths were reported. According to Dr. Mukenge Tshibaka, the doctor-regional inspector who gave these details, the principle concentrations of the tse tse fly, the carrier of this disease, are among others the areas of Kinzaa Vuete, Lukula, Tshela and Luozi in Cataractes. He said that in 1985 1,602 cases were reported, including two deaths, compared to 1,091 cases in 1984, with 20 deaths; 920 cases with 3 deaths in 1982; and 906 cases with 5 deaths in 1981. Dr. Mukenge said that the most vulnerable are people who work in the fields. In answer to a question, Dr. Mukenge revealed that a FOMETRO team will soon make a systematic check of villages that may be contaminated, and identify and destroy the nests of tse tse fly. [Text] [Kinshasa ELIMA in French 16 May 86 pp 1,8] 9920

MEASLES EPIDEMIC—A large measles epidemic is currently underway in Bongandanga zone, according to Dr. Makaya, a doctor of Bongandanga hospital, in a report submitted to the subregional administration of Mongala at Lisala. Dr. Makaya said the epidemic has already caused several deaths, though the exact number was not stated. The communities-chiefdoms of Boteva and Bososima are the most affected by the disease, the report indicates. The Bongandanga doctor criticized the ineffectiveness of the Bimu primary health care zone, and called for urgent aid in order to save the lives of numerous children threatened with death by this epidemic. [Text] [Kinshasa ELIMA in French 9 May 86 pp 1,7] 9920

CSO: 5400/103
DEATHS FROM MEASLES REPORTED IN SERENJE

Lusaka ZAMBIA DAILY MAIL in English 27 May 86 p 5

[Excerpt]

FIFTEEN children have died in Chief Kabinda's area in Serenje from measles in the last three weeks, Chipundu Rural Health Centre nurse-in-charge Demetricia Miyoba has said.

This came to light when Serenje governor Abel Bendela visited the centre on the Serenje-Samfya Road on his continued tour of the district.

Miss Miyoba told the governor that 30 to 40 cases of measles were being attended to daily at the Rural Health Centre, adding that most of the patients came from around Gibson Primary School and Chief Chiundaponde in Mpika district.

The Rural Health Centre was finding it difficult to contain the situation because of lack of transport and paraffin to carry out an immunisation campaign.

Miss Miyoba told Mr Bendela that the Rural Health Centre ordered paraffin last October but could not get the supply because of poor roads in the area.

Earlier, village headman and Mufungulu Party branch chairman Kosamu Chabushiku told the governor that at least 15 children had died since the outbreak of measles in the area three weeks ago.
JAVA FREE OF FOOT-AND-MOUTH DISEASE

Jakarta ANTARA in English 13 May 86 pp A6, A7

[Text] Jakarta, 13 May (ANTARA)—Minister for Agriculture Ir Achmad Affandi May 5 this year announced Java is free from foot-and-mouth disease which haunts cattle owners throughout the world.

Minister Affandi made the announcement after studying the results of monicoring and evaluation by a joint team consisting of members and ITB (Bandung Institute of Technology), Gajah Mada University in Yogy, Airlangga University in Surabaya, the Veterinary Research Centre, the regional offices of animal husbandry in Java and the directorate for animal health, which said that mass vaccination in the island in the last three years has been able to eradicate foot and mouth disease.

Foot and mouth disease which attacks cows and buffalos was rampant in Java in 1983, but thanks to the alertness of health officials the disease was contained and prevented from attacking other regions in the country.

Even though Java has been declared free from the foot and mouth disease, Minister Affandi asked people to keep on the alert against the possibility of the disease's entering from other regions.

The West and East Nusa Tenggara provinces are, for example, places where the disease is still rampant.

Both provinces are the biggest cattle suppliers for Java for its 89 million people.

To prevent the disease from attacking Java again Minister Affandi has asked health officials to carry out intensive control on regions used to have the disease, tighten control on cattle traffic, cattle produce and to continue vaccination at border areas, remote areas and the areas where the disease is rampant.
BOVINE LEUKOSIS FOUND IN 'WIDELY SEPARATED AREAS'

Georgetown CATHOLIC STANDARD in English 13 Apr 86 pp 1, 4

[Text]

A disease that may seriously affect the cattle industry has been discovered in cattle imported from Cuba a year and a half ago, as well as in local cattle.

The disease, bovine leukosis, corresponding to leukæmia in human beings, has been found in widely separated areas of Guyana.

The presence of the disease was indicated when blood tests were taken during routine screening.

The Cuban cows, about 300 heifers and about 14 bulls, as well as a special gift for the late President Burnham, had been acquired on credit from Cuba in October 1984. Guyana had to pay the freight in US dollars.

For six months the cattle were quarantined at Plantation Mara in Berbice and then a number were sent to Mon Repos and Camp Cocos, Hope Estate. The majority remained at Mara.

Before they left Cuba they were said to have been tested for disease and were given a clean bill of health. Since arriving, about fifty or more have died.

It is not known whether these deaths were caused by the disease, as the Catholic Standard was told that such losses were normal in shipping cattle from one country to another, especially where the conditions under which they are kept are very different.

On the discovery of bovine leukosis in the Cuban cattle, blood samples were taken from more than 200 cattle, both Cuban and local, and sent to the Veterinary Diagnostic Laboratory in Trinidad.

The results of the tests showed that a high percentage of both local and foreign cattle had the disease.

It is not known whether the disease was introduced by the cows from Cuba or was already here when they arrived.

About this disease Black's Veterinary Dictionary says that "a symptomless, latent leukæmic state may persist throughout life or change to the overt 'cancer' type of leukæmia, which is fatal within days or months."

The more serious form of the disease where tumours appear would seem to be rare in Guyana.

Normally, strict control measures are taken of leukosis herds, aided by laboratory diagnosis, as the disease is highly infectious.

No animals from them may be sold except for direct slaughter.

There appears to be no real cure for the disease and where it is discovered the affected animals are slaughtered to prevent the disease spreading.

Although the disease may significantly reduce beef and milk production, it does not affect human beings and no harm can come from eating the beef or drinking the milk of affected animals.

More tests will have to be carried out in all parts of the country to determine exactly how widespread is the disease in Guyana, but for the moment it appears to be so widespread that the slaughtering of the affected animals would decimate the cattle in the country.

When approached by the Catholic Standard for a comment on the high incidence of bovine leukosis in the cattle in the country, the Permanent Secretary, Ministry of Agriculture, was unavailable for comment.
At the beginning of 1984, on a farm containing 210 imported Romanovski sheep and about 400 lambs, a disease occurred in 4—5 sheep, with typical neurological signs of scrapie.

On pathohistological examination we also demonstrated the characteristic changes for scrapie. In the next 3 months we checked the diagnosis at first in 3 new cases, and after that in 8 sheep, with the same findings. These sheep were from 2—5 years old, except for one of 18 months old. The whole clinical course of the disease lasted 7 days. In the next two months there were no new cases of the disease.

In the meantime we proposed slaughter of all sheep older than 18 months. The rest of the flock were removed to a new completely isolated farm a hundred kilometers far from the former.

Seven months later a new case of the disease appeared again, and thus we recommended slaughter of the whole flock of sheep including their progeny.

INTRODUCTION

On describing the first cases of scrapie found in our country, it is necessary to give certain data concerning the current opinions about the causal agent, length of the incubation period, susceptibility and the manner of spreading of the disease.

Scrapie is an unconventional infectious disease from the group of slow virus infections in sheep, occurring rarely in goats. It is characterised by spongy encephalopathia and clinical signs such as scraping (pruritus), nibbling, hypersensibility, spasms, staggering and paralysis, which as a rule leads to a lethal end. In England the disease has been known for more than 200 years as well as in many countries of western Europe. After World War II, scrapie was imported into the USA, Australia, New Zealand and South Africa (Kimberlin 1981a).
Scrapie occurs in sheep of both sexes, between two and four and a half years of age. Although it can sometimes occur in older animals, cases are rare in animals under one year of age. The true nature of the causal agent is still not completely known. It is a virus-like agent, but it differs in many ways from conventional viruses. It is very resistant to boiling, ionising and ultraviolet radiation and chemical treatment (Dickinson 1976, Brown et al. 1982). In 3% formalin (which kills all kinds of viruses), it survives a few months (Pattison 1965). It does not induce the organism of the animal to produce antibodies, hence there is no corresponding serological test for diagnosing this disease (Outram 1976). Today there are three hypotheses attempting to explain the molecular concept of the causal agent of scrapie. According one of them, the causal agent is declared as a prion (infectious protein) which consists mostly of three protein molecules without nucleic acid (Prusiner 1982, 1984a, b); according to the second one, the causal agent is a virino agent, which consists of a small molecule of nucleic acid while the protective protein is coded by the host (Dickinson and Outram 1979, Kimberlin 1982a, c); according to the third SAF (scrapie associated fibrils), hypothesis, it is a virus of filamentous structure similar to some plant viruses and bacteriophages (Merz et al. 1983, Carp et al. 1985). It is difficult to say which of them is the most acceptable because it has been proved that there are many strains of the infectious agent with different pathological and biological characteristics. It has been known that those strains undergo mutations on serial passages in mice (Bruce and Dickinson 1979) and it is likely that mutations also occur under natural conditions in sheep.

The incubation period of the disease can last from several months to several years. The length of incubation depends on genetic factors in the host. By selective breeding, lines of sheep have been made with increased (positive) and decreased (negative) susceptibility to inoculation of the standard scrapie agent known as SSBP/1. Further investigations have proved that the response to infection SSBP/1 is controlled by the SIP (scrapie incubation period) gene with two alleles. The allele which controls susceptibility is dominant. The mode of action of the SIP gene is not quite known, but one assumes that it controls the incubation period by regulating causal agent replication (Dickinson et al. 1968, Dickinson and Fraser 1979, Hussbaum et al. 1975).

The spreading of the infectious agent in flocks can occur by horizontal and by the maternal (vertical) mode as well. Thus Brotherston et al. (1968), Dickinson et al. (1974), and Hourrigan et al. (1979), pointed out that the primary source of horizontal infection, are thought to be animals in incubation and animals with clinical signs of the disease and their products of secretion and excretion, the placenta after lambing, desquamated cells due to intense rubbing and scraping, contaminated environment e.g. (pasture, bedding, fixed objects, food and water e.t.c.). Same epidemiological evidence of natural scrapie and some experimental works indicated the possibility of maternal transmission of the disease, although the exact mechanism and the time of occurrence of the infection are not known (Dickinson 1976, Kimberlin 1981b).

OUR CASES OF SCRAPIE

At the beginning of 1984, on a farm containing 210 imported Romanovski sheep, and about 400 lambs, a sporadic disease with neurological signs occurred in the sheep. In this flock the health problems at that time were pneumonic processes and therefore these cases of sickness, did not attract the attention of the herdsmen at first. Later, these neurological signs occurred in 4—5 sheep at the same time. These animals trailed after
the flock with signs of trembling and nodding of the head with characteristic movements of the lips and the ears. After that they began scraping and rubbing against fixed objects all over the body, but mostly over the back, rump, flanks, legs and the base of the tail. Therefore a loss of wool occurred, and on the skin one could see injuries of variable intensity. The diseased animals swayed drowsily with unsteadiness, staggering and incoordination and often with the inability to stand when they would fall completely paralysed. The significant sign was the loss of body weight. Death usually occurred within 24 hours. The whole clinical course lasted only 7 days.

On post mortem examination we found cachectic carcasses of sheep with mechanical injuries on the skin, as a consequence of the scraping and rubbing. In three sheep we found pneumonic changes and in two of them the finding was negative. According to the clinical signs, the disease was suspected to be scrapie. Therefore we took sections from the central nervous system — e.g. thalamus, pons, medulla oblongata and lumbar part of the spinal cord for histopathological examination. The sections of tissue were fixed in 10% formalin, embedded in paraffin and stained with H. E. The changes were especially confined to the grey matter of the pons and the medulla oblongata. The principal microscopic lesions consisted of focal or diffuse neuronal degeneration with single or multiple vacuoles in the cytoplasm (Fig. 1a, b). The vacuoles varied in size, from small to very large, therefore some neurons were enlarged. The vacuoles pressed upon the nuclei so that they could hardly be seen, until finally the cells reached the stage of disintegration. Some of them showed partial or total chromatolysis and pyknosis. In addition to these changes certain neurons with excentric nuclei could be seen and the whole cytoplasm was transformed into a granular eosinophilic mass — tigrolysis. In most cases among the neurons the cerebral tissue had a spongious appearance (Fig. 1c). As a characteristic feature of the disease we found more or less a proliferation of the astrocytic cells, so called astrocytic gliosis (Figure 1d).

In the next three months we checked the diagnosis several times. These sheep were from 2—5 years old, only one of them was under 2 years of age (18 months). For two months after that, there were no new cases of this disease. However, knowing the true nature of the disease we expected that it would appear again. At that moment we proposed slaughter of all sheep older than 18 months together with their progeny. The remainder of the young flock was removed to a new, completely isolated farm a hundred kilometers far from the former. At the same time all traffic, purchase and selling of sheep was forbidden and the severest measures of control were imposed on the flock. Seven months later new cases of the disease appeared again. The only thing that could be done after that was to slaughter the whole flock of sheep.

DISCUSSION

Although scrapie has been registered in many European countries, we came across it for the first time in 1984. The spreading of scrapie to countries free from the disease most often occurs by importing animals from countries in which the disease is well known. It is also known that controlling this disease is very difficult, almost impossible, because of the long lasting incubation period, the absence of an immunological response and the lack of any specific diagnostic method for confirming it in live animals. Diagnosis is possible only after an outbreak of the disease, on the basis of clinical signs, histopathological examination of the central nervous system and biological tests.

In our diseased sheep we noticed almost all the typical signs of scrapie although not always with equal intensity in all cases. On the other hand
the course of the disease was probably somewhat shorter than usual. Some authors (Dickinson 1976, Kimberlin 1981b) stated that some clinical signs might not show, which, together with the long duration of the disease, depends on the breed of sheep and the strain of the causal agent.

Our histopathological findings are almost the same as those cited by many authors (Fraser 1976, 1979a, b, Hadlow et al. 1980, Mackenzie 1984). Some authors found perivascular agglomeration of amyloid (Bruce 1985), and some observed inclusion-like bodies in the neurons (Zlotnik and Stamp 1961), but we did not. It is well known (Zlotnik and Rennie 1958) that single vacuoles, can be found occasionally in the neurons of healthy sheep but that is not of any diagnostic importance. It is also possible to produce the disease experimentally in sheep and some experimental animals such as mice and hamsters, but this method, because of the long incubation period, is also not of importance in routine diagnosis.

One of the most important questions is what to do when the disease appears. The struggle against scrapie is very difficult because all aspects
of the disease are not completely known and it represents a great threat
to the flocks of sheep in one country. For example, some data concerning
Great Britain state that damage from scrapie amounts to 15 million pounds
per year. Having all this in mind it would be most efficient to slaughter the
whole flock of diseased sheep as well as all the other sheep which had
been in contact with the diseased ones. Pastures and sheep pens should
also be abandoned, which is very important. The experience of Iceland
(Palsson 1979) states that habitation on contaminated pastures brings about
a new outbreak of the disease even after 3 years. The efficiency of the
above stated method has been proved by the successful eradication of the
disease in Australia and New Zealand (Kimberlin 1983).

In areas where scrapie is widespread (endemic scrapie) the struggle
against it is more complex and less successful.

REFERENCES

Brotherston J. G., Renwick C. C., Stamo J. T., Zlotnik I. and Pattison I. H. 1968. Spread
of scrapie by contact to goats and sheep, J. Comp. Path. 78, 9—17.

and histopathological processing on high infectivity hamster adapted scrapie virus.

Bruce M. E. and Dickinson A. G. 1979. Biological stability of different classes of scrapie
agent, in "Slow transmissible disease of the nervous system" (S. B. Prusiner and

Bruce M. E. 1985. Personal communication.


studies on the agents causing the spongiform encephalopathies, in "Slow transmis-
sible diseases of the nervous system" (S. B. Prusiner and W. J. Hadlow, eds.), Vol.

Dickinson A. G., Stamp J. T., Renwick C. C. and Rennie J. G. 1968. Some factors control-
ing the incidence of scrapie in Cheviot sheep injected with a Cheviot-passaged
scrapie agent. J. Comp. Path. 78, 313—321.


Dickinson A. G., Stamp J. T. and Renwick C. C. 1974. Maternal and lateral transmission of
scrapie in sheep. J. Comp. Path. 84, 19—25.

Dickinson A. G. and Fraser H. 1979. An assessment of the genetics of scrapie in sheep
and mice, in "Slow transmissible diseases of the nervous system" (S. B. Prusiner and

Dickinson A. G. and Outram G. 1979. The scrapie replication site hypothesis and its
implications for pathogenesis, in "Slow transmissible diseases of the nervous
system" (S. B. Prusiner and W. J. Hadlow, eds.) Vol. 2, 13—31, Academic Press,
New York.

Fraser H. 1976. The pathology of natural and experimental scrapie, in "Slow virus diseases
of animals and man" (R. H. Kimberlin, ed.), North Holland, Amsterdam.

Fraser H. 1979a. Neuropathology of scrapie: The precision of the lesions and their diver-
sity, in "Slow transmissible diseases of the nervous system" (S. B. Prusiner and

Fraser H. 1979b. The pathogenesis and pathology of scrapie, in "Aspects of slow and
persistent virus infections" (D. A. J. Tyrrell, ed.), 50—58, Martinus Nijhoff Pub-
lisbers, London.

in the United States, in "Slow transmissible diseases of the nervous system" (S.

Hadlow W. J., Kennedy R. C., Race R. E. and Eklund C. M. 1980. Virologic and neurohisto-

Livestock Production Science 5, 233—242.
Kimberlin R. H. 1981b. Scrapie as a model slow virus disease: problems, progress and
diagnosis. In "Comparative diagnosis of viral diseases (E. Kurstak and C. Kurstak,
Science 7, 392—394.
Mackenzie A. 1984. Interneuronal enzymic inclusions in the histological diagnosis of scra-
establishment of sheep flocks of predictable susceptibility to experimental in-
Outram G. W. 1976. The pathogenesis of scrapie in mice, In "Slow virus diseases of
animals and man" (R. H. Kimberlin ed.). 325—357, North Holland, Amsterdam.
Palsson I. H. 1979. Rida (scrapie) in Iceland and its epidemiology, In "Slow transmis-
sible diseases of the nervous system" (S. B. Prusiner and W. J. Hadlow, eds.),
Prusiner S. B. 1982. Novel proteinaceous infectious particles cause scrapie Science 216,
135—144.
New England Journal of Medicine 310, 661—663.
neurones in the medulla from apparently healthy sheep of various breeds. J. Comp.
Path. 68, 411—425.
CORRIDOR DISEASE RESURFACES IN SOUTHERN PROVINCE

Lusaka ZAMBIA DAILY MAIL in English 17 May 86 p 3

[Text]

CORRIDOR disease has resurfaced in the Southern Province and has claimed more than 300 head of cattle in Chief Sekute's area, Kalomo district governor, Mr Jonathan Singombe said in an interview yesterday.

Mr Singombe who has just completed a tour of Kazungula area west of Livingstone, told the Mail that cattle deaths were high because people in Chief Sekute area had no dip tanks.

He appealed to the Department of Veterinary and Tsetse Control to send officers to the area to assess the seriousness of the disease and offer professional advice to villagers.

Mr Singombe said the areas affected were Kachabula, Ngweze, and Sikauznwe about 100 kilometres from Livingstone district.

The governor also appealed to officers from the Department of National Parks and Wildlife Services to send officers to Chief Sekute's area to scare away elephants which were destroying crops in the area.

Many villagers had resented well to calls for increased crop production and had gone flat out to plant sorghum and maize donated by the government.

"But their efforts have been frustrated by the appearance of elephants which have destroyed most of the crops in the area," he said.

Mr Songombe said officers from the Department of Wildlife should not wait until villagers donate transport or fuel for them to travel to the area, but they should find ways of travelling to the affected areas on their own.

He said he will this year ensure that all officers from the Ministries of Agriculture and Water Development, General education, and Culture and the Department of Social Development leave their offices to monitor the agricultural activities on main areas.

"It will be the duty of government officers to ensure that the brewing of illicit beer is discouraged during the next farming season," he said.

He said it was embarrassing for a nation with vast land to import maize from other nations when there were able-bodied men in the country to produce enough maize for local consumption.

Mr Singombe said the National Agricultural and Marketing Board (NAMBOARD) and the Southern Province Cooperative Marketing Union (SPCMU) should deliver seeds to farmers on time.

Many people were interested in growing a variety of crops which would do well in their respective areas but were being frustrated by the two marketing organisations which failed to deliver the right seeds at the right time.
PLANS TO CONTROL COTTON WORM REPORTED

Problem Discussed

Cairo THE EGYPTIAN GAZETTE in English 13 May 86 p 2

[Text]

DR. Youssef Wall, Deputy Prime Minister and Minister of Agriculture, yesterday said that the number of cotton worm egg patches per feddan is very high this year and is expected to be twice the number of last year. Dr. Wall urged farmers to inspect their fields during Ramadan in order to start the manual destruction of eggs as soon as the patches are discovered.

While inspecting the cotton worm combating procedures in Fayyum Governorate, Dr. Wall also said that the Cabinet had agreed to cultivate 1,058,000 feddans with cotton this year, and that the targeted figure has been fulfilled.

Farmers will not pay more than LE 18 per feddan for the subsidised cotton-worm combating operations, which costs the government about LE 100 per feddan, Dr. Wall pointed out. — GSS

New Combat Procedures

Cairo THE EGYPTIAN GAZETTE in English 23 May 86 p 2

[Text]

THE Deputy Prime Minister and Minister of Agriculture, Dr. Youssuf Wall, yesterday inspected the cotton-worm combat procedures in Sharkia and Dakahlia governorates. He said that 50,000 feddans cultivated with cotton in the Delta will be treated with a special material that causes sterility of male butterflies which become unable to fertilise the eggs laid by the females, thus stopping the life-cycle of the worm. If this experiment proves successful it will be applied in the various governorates, he pointed out.

He also said that insecticides are available in all agricultural cooperative societies, and that the Ministry of Agriculture has prepared the planes which will be used to spray insecticides over cotton fields.

The incidence of cotton worm egg patches in Sharkia Governorate is less than in Fayyum Governorate, said Dr. Wall, adding that the manual combat groups, numbering 9,000, have already started working in Sharkia and Dakahlia where 300,000 feddans are cultivated with cotton. — GSS
COTTON is growing normally in all governorates this season, as the pesticides necessary for controlling the high incidence of cotton-worm are available in all governorates, said the Deputy Prime Minister and Minister of Agriculture, Dr. Youssef Wall, following his visit to the governorates of Menufia, Gharbia, and Kafr el Sheikh.

Dr. Wall added that cotton-worm will not greatly affect the overall cotton yield this season in Menufia. A total of 230,000 feddans allocated for cotton in the three governorates have been cultivated.

Dr. Wall pointed out that he is currently studying means whereby the price of maize could be raised to achieve an improved return for the farmer. He added that farmers growing maize will deliver the yield on the cob this season instead of separating it, as this will facilitate transport and packing.

Meanwhile, two ardebs of the yield of each feddan will be allocated for export. Dr. Wall pointed out that a new experiment is currently being conducted in an area of 50,000 feddans to solve the problem of cotton-worm which affects the cotton yield every season, with a chemical substance which could prevent the male butterflies from fertilising the eggs laid by the females.
PLAGUE OF LOCUSTS 'CHECKED FOR NOW'

Johannesburg THE STAR in English 23 May 86 p 5

[Article by Don Holliday]

The brown locust swarms which plagued large areas of South Africa this year were "pretty much things of the past" — at least for the moment, a spokesman for the Department of Agriculture, Economics and Marketing said yesterday.

Mr Thys Heyns, of the department's soil protection division, said the scattered swarms reported in the Dwaalboom area between Rustenburg and Thabazimbi were not of major significance.

No hatching was expected during the cold, dry winter months, but given favourable conditions next spring the situation could worsen.

A conference to discuss possible plans of action against the voracious insects was scheduled to take place in De Aar on June 29 and June 30.

PLENTY OF EGGS

"You can rest assured that these blighters laid plenty of eggs," he said.

He had no knowledge of reported plans by the United Nations' Food and Agricultural Organisation to assist South Africa and its neighbours in fighting "the worst locust invasion in 60 years."

Brown locusts were synonymous with the history of the country.

"Reports of brown locust swarms date back to 1656, when a Cape Flats farmer complained of crops damaged," he said.

"The situation could be termed out of control if they continued to spread and started breeding in new and different areas."

This year's invasion affected between 30 and 35 million ha of land — roughly one-third of the country, he said.

Efforts to combat the swarms were made difficult by the fact that up to 50 percent of the farms in the Karoo — the brown locust's natural habitat — were unoccupied and the presence of the swarms went undetected.

VIGILANCE

He called for greater vigilance and regular inspections to ensure their early detection.

Favourable climatic conditions in breeding areas had led to as many as four generations of locusts operating this year.

The average female laid between 20 and 80 eggs at a time, usually three times a year.
THAI BINH RICE PESTS—More than 40,000 hectares of spring rice—half of the rice acreage in Thai Binh, a major rice-growing province in northern Vietnam—are being subjected to crop pests. Thanks to the local administration's and people's efforts, about 5,000 hectares have been saved. Efforts have been made to limit the losses caused by crop pests in the province. [Text] [Hanoi International Service in English 1000 GMT 7 Jun 86 BK] /6662

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