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24 September 1985

Worldwide Report

EPIDEMIOLOGY

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WORLDWIDE AFFAIRS

PROSPECTS FOR SPREADING OF AIDS IN EUROPE

Rotterdam NRC HANDELSBLAD in Dutch 8 Aug 85 Supplement pp 1,2

[Article by E.J. Boer: "The Advance of AIDS -- Europe Between Hope and Fear"]

> [Text] Somber reports predict an AIDS explosion in homosexual and heterosexual circles. And yet, the hard figures point in a different direction -- a less rapid increase than had originally been feared.

The disease AIDS is steadily increasing in magnitude. In the United States the number of registered patients has currently risen to more than 12,000. On 30 April, the 10,000th patient was reported in Atlanta, a remarkable milestone noted separately in the report of the CDC [Center for Disease Control], which keeps an accurate count of cases. In the Netherlands the number of patients is currently 66; meanwhile, 40 of them have died.

Alarming reports are circulating about AIDS: it is thought that explosions are in the offing. During a congress on sexually transmissible diseases in Brighton (England), it appeared that there was a great deal of anxiety among the participants. In addition to America and Europe, such an explosion was also feared in the developing countries, because AIDS is advancing especially in Central Africa. Given all kinds of structural problems, very little is apparently being done there in terms of registration and prevention. The scope of the problem there is difficult to estimate.

On the other hand, figures in America and in Europe diverge favorably from the somber predictions of a few years ago: talk of doubling the number every half year has long since disappeared.

Single Partner

Dr John Harris, well known expert on sexually transmissible ailments in London, warned in Brighton that if a catastrophe is to be prevented members of the public will have to change their sexual behavior and limit themselves as much as possible to a single permanent partner. This applies not only to homosexuals but also to heterosexuals, said Harris. He presented the picture of a traveling businessman who does not have to count his pennies, who is sitting in his hotel room alone and lonely and reaches for the telephone to find some entertainment. He could pick up aids via a prostitute and take it back home.

Harris issued that warning because it has become clear in African countries such as Zaire that AIDS can also be transmitted through heterosexual contact. Meanwhile cases have also become known in the West where it is accepted that the virus was transmitted through conventional heterosexual relations -- although it is still hard to determine whether it may perhaps have involved anal contacts.

In New York City, a large number of prostitutes have been shown to have antibodies against AIDS in their blood. That does not mean that the person herself is sick or will become sick, but it does mean that she may have the virus and could transmit it to others.

Furthermore, it has been determined that 35 percent of the spouses of a large group of American males who have antibodies in their blood also have antibodies. It is assumed that they got them from their husbands. All in all it has been estimated that about 1 million Americans now carry the virus and that about 10 percent of them will become sick in time. As a matter of fact, that percentage has not yet been confirmed by long term research.

In America it seems that the number of cases of the disease is growing less rapidly than had been originally predicted. During the first years it was assumed that the number of reported cases would double every half year, hence an exponential growth. For America this did apply during the years 1979-1981, but soon afterwards it no longer did, as you can determine for yourself when you know that the year 1983 began with 1,298 cases, 1984 with 3,979 and 1985 with 9,094. On 1 July 1985 the American score was 11,344.

Instead of a 100 percent increase per half year period there was no more than 90 percent (first half of 1983), 61 percent (second half of 1983), 57 percent (first half of 1984), 45 percent (second half of 1984) and 25 percent (first half of 1985; this percentage will undoubtedly go up because of reports received later).

Something similar also seems to be occurring in the Netherlands now. We started in 1983 with 3 patients; during the first half of 1983 there were 4 more; during the second half 13 more; during the first half of 1984 there were 21 more (this probably involves a few delayed registrations because in October there suddenly were 26); the second half of 1984 produced 42 more, and the first half of 1985 another 66 more.

While the increase during the second half of 1984 was not quite 100 percent, by 1 July 1985 it had increased no more than 57 percent. If the doubling had occurred, then the 66 cases we have now would have had to be 84, 18 more, and that is a significant difference.

Things are no different in other European countries. Given the number of AIDS patients per 1 million inhabitants, our country, with its liberal attitude toward homosexuality and promiscuity, does not make a bad showing: 3.6 AIDS patients per 1 million inhabitants as against 2.6 in Germany, 0.8 in Spain, 5.9 in France, 7.9 in Switzerland and 8.0 in Denmark. Belgium tops everything with 8.2, but Belgium carries part of the African misfortune because well-off

patients from the former Belgian Congo (about 60 of them) are being treated in Belgium for the infections they developed as a result of AIDS. There are only 21 "real" Belgian patients. France also has a number (46) of African patients, and so does Switzerland (8).

AIDS Tourism

In France there is also talk now of American AIDS tourism, because of experiments with anti-AIDS drugs at the Pasteur Institute in Paris. Among these patients is film star Rock Hudson, who has received a great deal of attention from the popular press because of it.

The World Health Organization [WHO] has added up the figures: 940 patients in the 17 European countries which participate in the central registration, 178 of whom were added this year. Moreover, the fact that the WHO lists the Netherlands as having 3.6 cases per million inhabitants indicates that the WHO figures are a few months old: indeed, with 14.5 million inhabitants this figure would mean 52 patients, whereas by now there are 66 of them. Hence the figure for the Netherlands today is 4.5 per million, a figure which can only go up given that the population is virtually not increasing. Hence it should not surprise anyone that the United States has passed the level of 40 patients per 1 million inhabitants -- the European countries are lagging behind America but in a few years time they may have completely or partly caught up.

Of the 940 European cases, 55 are women (33 of them African). According to the WHO report, in Europe 83 percent of the AIDS patients are said to be homosexual or bisexual and only 3 percent (= 28) drug users. In America the percentages are different: there 17 percent are drug users.

Enigmas

In the Netherlands it has been determined that 60 of the 66 patients became infected through homosexual contact, 4 patients are known to have been infected through blood transfusions, 1 woman is assumed to have been infected by her husband, a hemophiliac, and for 1 patient it is not clear how the infection occurred. But no intravenous drug users have been found so far among the Dutch AIDS patients.

Meanwhile, the enigmas surrounding the behavior of the AIDS virus itself are still far from being solved. Aside from the fact that the epidemiologic development is watched very closely, an answer is being sought to the question of why it can take so long for the AIDS virus to manifest itself in an infected person. They are now looking into an assumed correlation between AIDS and the Hepatitis B virus. The possibility has been suggested that the AIDS virus can be present for a long time in T-lymphocytes, white blood cells which play a central role in the immune system, without causing any direct damage.

It is said that the AIDS virus could sneak up on a T-lymphocyte without being recognized and could possibly "sleep" for years. It is only when another virus (in addition to Hepatitis B, the cytomegalovirus and the Epstein Barr virus are suspected of such a role) activates the T-lymphocytes that the

genetic material of the AIDS virus would manifest itself and would multiply itself at lightning speed within the lymphocyte. According to William A. Haseltine of the Dana Farber Cancer Institute in Boston, the AIDS virus is able to do this at a rate 1,000 times that of a comparable virus. As a result of this behavior the T-lymphocyte (what is involved here is the so-called T-lymphocytes or "helper cells") would then break down, as is usually the case with cells that are exploited by a virus.

But it is a hypothesis for which no hard evidence exists as yet, although the lymphatic picture in the blood of AIDS patients is profoundly disturbed: a serious shortage of T4-lymphocytes and a surplus of T8-lymphocytes, cells which are supposed to be in constant balance with the T4 cells.

Thus an explanation is being sought on several fronts for the manner in which the AIDS virus can suppress a person's immune system. Search for the cause, search for a vaccine, search for a cure -- for the time being all three answers are still awaited.

Prevention

Therefore, the only useful consideration for the time being is prevention. In principle John Harris from London is right when he says: if people limit themselves to a single permanent partner the spread of AIDS will be blocked, but of course it is not very realistic advice.

Will Europe have to follow completely the road America has traveled? Given the fact that a leveling of the increase seems to be taking place here at a much earlier stage, it would seem not. The epidemic was able to become established in the United States, especially in New York and San Francisco, before people became aware of the existence of the new virus illness. We were able to react more rapidly in our country, and we benefited greatly from the American experience and knowledge. We immediately started with prevention. Moreover, the Dutch homosexual subculture, particularly in Amsterdam, was already familiar with prevention through the GG and GD [Municipal Medical and Public Health Service], among other things because they were participating in a hepatitis B vaccination program. Research has shown that Dutch homosexuals today are better informed about the existence of AIDS and the manner in which one can protect oneself than the American pioneers were at the time. The information has had a positive effect.

This effect can be demonstrated on the basis of figures relating to other sexually transmissible diseases, such as syphilis. Compared to 1983, the spread of syphilis among homosexual males dropped in 1984 by as much as one-third. That means that something is happening with the behavior of homosexuals in a positive preventive sense. We want to continue on that road. The GG and GD and the Foundation for Health Information and Education [GVO] in Amsterdam, which have already distributed a great deal of information materials about AIDS among groups at risk, have now, under the auspices of the National AIDS Coordination Team, made a telephone information line available, manned by 9 volunteers, where information about sexually transmissible diseases can be obtained on weekdays (15:00 - 20:00 hours). This AIDS line will begin on 2 September

next -- telephone number: 020-244244. In addition, if there is reason for it (for example following a radio or television program on the subject) arrangements will be made so that the line will be accessible in the evening.

Prospective

In order to obtain greater insight into the behavior of the virus, a so-called prospective study was commissioned in October of last year by the Prevention Fund. It involves 1,500 homosexual males with multiple and varied contacts who, at the beginning of the study, had no antibodies against AIDS in their blood.

Blood, urine and sperm samples were taken from them and then frozen. Afterwards, the participants have been regularly checked.

The intention of the study is to find out what happens when the individual involved does develop antibodies in his blood serum: the change from sero-negative to sero-positive. The questions to be answered are what mechanisms play a role in the transfer of the virus and what factors are involved when AIDS or the AIDS related complex (a preliminary stage of AIDS with well known symptoms, which as a matter of fact does not always have to turn into AIDS) sets in? So far this Dutch research is virtually unique: to the extent that it is known, there is a single small American research project in progress which resembles it somewhat.

Participants can of course be faced with the knowledge that they are "positive," and that requires psychosocial help. This applies equally to others who, if requested, are told by the GG and GD that they have antibodies in their blood, and thus have been in contact with the AIDS virus. The situation for them is that they may have to live for years in uncertainty as to whether or not they will become ill.

In the Amsterdam region alone live 25,000 homosexuals, half of whom may become sero-positive within the next 3 years. That means 12,500 of them, of whom 5 to 10 percent will develop AIDS (a percentage that is still speculative). That means that a number of years from now there will be about 1,000 new AIDS patients who will need intensive help if the gruesome American situations of a few years ago are to be prevented here. And then we have not even considered the 3,000 intravenous drug users yet, the "shooters," living in Amsterdam today. Among them are also hundreds of potential AIDS patients.

Heterosexual Transmission

In other words, even if the somber predictions from Brighton concerning an AIDS explosion among homosexuals and heterosexuals do not materialize, the Netherlands will still have its hands full with its AIDS problem. Whether heterosexual transmission will become the normal course of events in the future still remains to be seen. If the vaginal mucous membrane can still be considered an adequate barrier for contact between sperm and blood, then infection in that manner will remain impossible. On the other hand, that barrier may become temporarily weak -- as during or shortly after menstruation. It is

also assumed that the presence of an IUD ("coil") could influence this barrier. There is an abundance of hypotheses. What is talked about very little but must be considered a fact, is that anal contact must also be counted among hetero-sexual practices and that thus the same manner of infection can occur as in homosexual circles.

Eventually, hard figures will probably have to produce the answer here also.

8463
CSO: 5400/2554

CAMPAIGN AGAINST SLEEPING SICKNESS CONTINUES

Luanda JORNAL DE ANGOLA in Portuguese 14 Jul 85 p 8

[Text] Ndalatando--Within the emergency program for the health sector, the campaign against trypanosomiasis, commonly known as sleeping sickness, continues to be conducted efficiently in this region. The receipt of more technical-material means has made it possible to conclude examinations throughout Cambambe Municipio, Belarmino Delgado, Health Ministry delegate in Kwanza-Norte Province, reported to the Angolan news agency ANGOP.

Thus, during the first half of this year, 12,773 people were examined and 107 others who were suspected of contracting the dread disease were treated.

The combat brigade against sleeping sickness is now in Gonguembo Municipio, where major foci of this doleful disease are foreseen, since the area borders on Pango-Aluguem Municipio (Bengo Province), where several cases of trypanosomiasis have been recorded in recent years.

In accordance with the data supplied to the Health Ministry by party and government agencies in that municipio, the brigade plans to examine 12,137 residents.

In addition to the campaign against trypanosomiasis, the emergency program for the sector includes the general vaccination program for primary prevention, combat against malaria and rigorous control of tuberculosis and Hansen's disease.

Malaria combat is conducted through preventive treatment and outpatient consultation in all the health centers in the province. Antimalaria prophylaxis is administered to all pregnant women and up to 6 weeks after delivery.

With regard to leprosy and tuberculosis, previously detected cases continue to be treated. During the last 6 months there have been four "remissions" among leprosy patients, Belarmino Delgado reported.

Primary health measures are aimed at achieving the best possible levels of health for all mothers and children up to 5 years of age. The program has been strengthened with the vaccination campaign against measles for children and against tetanus for women from 15 to 45 years of age.

The provincial health delegate concluded that the most prevalent diseases in the region are severe diarrhea (mainly among children), malaria, measles, respiratory ailments and anemia.

6362
CSO: 5400/181

BRIEFS

MORE GASTROENTERITIS DEATHS--Kushtia, 6 Aug--Three persons died of gastroenteritis in Daulatpur upazila during the last few days, reports BSS. Two of them died at village Mullukchandpur under Maricha union and one at village Bolua under Adabaria union. The Civil Surgeon Kusnila confirmed the report and said that he had visited the area with a medical team on Saturday. The team has since been working there to check the spread of the disease. [Text] [Dhaka THE BANGLADESH TIMES in English 7 Aug 85 p 2]

INFLUENZA OUTBREAK--Mymensingh, 7 Aug—Influenza has broken out in Mymensingh Town in an epidemic form. Almost every house has been hit and in most of the houses, two or three persons are affected with this disease. It is known from a survey report that about 10,000 people were affected within the last 2 weeks by this disease in the town. The influenza continues for about 7 days. The victims feel an intolerable headache and body pain and the temperature increases up to 104 degrees. All treatment is proving ineffective to control the disease. The patients take pineapple at the affected time for their diet. [Text] [Dhaka THE BANGLADESH OBSERVER in English 9 Aug 85 p 7]

CSO: 5450/294

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REVIEW OF NATION'S HEALTH SERVICES FINDS DEFICIENCIES

Bridgetown BARBADOS ADVOCATE in English 24 Jul 85 p 9

[Article by Erskine Sandiford, M.P.]

[Text]

Nothing highlights the muddle and inappropriateness of the government's response to the problems facing Barbados than the present standoff between the government and doctors over the proposed national health service, so-called. The irony of the situation is that for many decades now succeeding governments, both in colonial and independent Barbados, have been able to build up a reputable and enviable health service.

That health service is truly "national", not in the narrow sense of being exclusively or almost exclusively owned, operated, controlled, and financed by the government out of the taxpayers' pockets, but in the wider and truer sense that the health services, consisting of a combination of health personnel, facilities, and other health-related resources and inputs, are available and accessible to all Barbadians in a more or less planned, co-ordinated, and intergrated manner.

The health services are national in the sense that there is a comprehensive set of laws on the statute books of Barbados requiring the Minister of Health to be responsible for the promotion and preservation of the health of the inhabitants of Barbados. The Minister of Health is himself responsible and accountable to the national parliament and through parliament to the nation.

His national health service responsibilities include the following: the prevention, treatment and suppression of disease; the abatement of nuisances or situations dangerous to the public health; the control of food and drugs, including the protection of the public from related fraud and deception; and the dissemination of reports and information on health matters. The laws make provision for a Chief Medical Officer to be responsible to the Minister for discharging those functions.

Shield of protection

Right now, the national health services provide a shield of protection for the people of Barbados, through the delivery of a sophisticated programme of primary health care and secondary health care, which seeks to prevent the outbreak of disease, and to cure or alleviate illness. That programme may be classified under the four broad heads of the promotion of health, including the provision of an adequate and safe food and water supply in the home, recreation, and health education; the prevention of disease, including immunizations, health guidance and counselling to individuals and families, and early detection and screening;

diagnosis and treatment, including diagnosis before and after symptoms have appeared, treatment in home, office, clinic, and in a general or specialized hospital; and finally rehabilitation.

The national health service of Barbados is indeed truly national and comprehensive. It operates in the area of epidemiology and vital statistics, public health and sanitation, communicable disease control, laboratory services, maternal and child health, health education, control of chronic diseases, accident prevention, hygiene of housing, occupational health, school health services, medical rehabilitation, and medical care rehabilitation.

No one, I think, will deny that our national health services have been a source of national strength. Since 1945, the life expectancy of the population has increased. The birth rate, the infant mortality rate, and the death rate have all fallen. The preventive public health services are comparatively well organized, and there is a cadre of trained health personnel available. The diseases which were the principal causes of hospitalization and death 50 years ago have retreated, and instead today (1980-82 statistics), the ten principal causes of death in rank order are: heart disease; malignant neoplasms (cancer); cerebrovascular disease; diabetes mellitus (sugar); other diseases of the circulatory system; hypertension (high blood pressure); pneumonia; certain conditions originating in the peri-natal period; all other accidents; and bronchitis, emphysema and asthma.

Those diseases are the ones which are more prevalent in developed than in third world countries. Furthermore, the ranking of those diseases in Barbados is similar to that found in Britain, where the health services are nationalized, or in the United States, where the health services are not nationalized.

But how are the health services actually delivered to the people of Barbados at this time?

Two health sectors

Just as the economy of Barbados is a mixed one which relies on both a public sector and a private sector for the delivery of economic goods and services, so too is the delivery of health care a mixed one which relies on both a public sector and a private sector for the provision of health services. It is difficult to obtain information concerning the relative sizes of the two health sectors, but it is estimated that the public sector covers at least 65 per cent of the health provision and this is met out of the taxpayers' pockets, while the private sector covers the remaining 35 per cent, and this is met through the payment of fees-for-services by patients.

Let us face it! What the Government is proposing to do is to change the boundary between the publicly and privately provided health care services, by increasing the public sector at the expenses of the private sector. In other words, the Government is bent on nationalizing the health services, just as Britain nationalized its health services in 1948, but is even still today complaining about the high costs involved.

There should, however, be no illusions about the objectives and directions of public policy in respect of health. The right to health is the fundamental human right; and without it none of the other rights guaranteed to us under our Constitution can be attained!

I believe that every Barbadian is therefore entitled to comprehensive and adequate health care, and this should be available and accessible to each individual, whether he or she can afford it or not. This society has reached or should have reached the level of economic competence and social conscience, that that right to health can be satisfied. The question therefore is not whether the right should be met, but how it should be met.

Current problems

Admittedly, there are a number of deficiencies in the existing health services. These include the following:

(1) There are frequent complaints of long waits for medical treatment at the Casualty Department of the Queen Elizabeth Hospital. But nationalizing the doctors or turning them into independent contractors will not solve this problem, because the doctors who currently provide that service are already nationalized public servants. Rather the solution to that problem lies in the complete restructuring of the Casualty Department through an increase in the availability of medical and other staff, through a proper system of triaging, through a restriction of the services of the Casualty (Accident and Emergencies Unit) to determined serious accidents and other conditions requiring immediate medical attention, and through the parallel development of a separate out-patients' clinic at the Hospital for non-emergency cases. Policy proposals along these lines were clearly set out in both the 1976 and 1981 manifestoes of the Democratic Labour Party. The government is only now adopting these creative proposals.

(2) There are accusations, justifiably so, that medical care becomes increasingly scarce or unavailable as afternoon turns to evening, and evening turns to night. But nationalizing the private doctors by bringing them on the Government's payroll is a very clumsy and expensive way of dealing with that problem. Rather, the approach to the problem should be by way of discussion with the doctors and their professional body concerning the provision of doctor's services after hours on a parochial or regional basis. This approach would certainly be less burdensome on the taxpayers than what the government is proposing to do.

Valid complaints

(3) There are valid complaints that certain high-technology tertiary level facilities and resources are not available in Barbados for the diagnosis and treatment of certain diseases. Bringing the doctors on to the government's payroll is irrelevant to this problem. Rather, the solution to this problem is for the Government to pay the full costs for such cases to be treated abroad in circumstances where it is medically determined that adequate facilities and resources are not available in Barbados. The Democratic Labour Party made that proposal in its 1981 manifesto. The sum currently provided by the Government for these purposes is woefully inadequate.

(4) There is need for comprehensive hospital services in the north of the nation. The establishment of a nationalized health service, such as the Government is proposing, will do nothing to solve this problem. What is required is genuine discussion with the authorities of the St. Joseph Hospital in St. Peter to secure through an input of resources that full hospital services become available there on a 24-hour basis. The independent status of the hospital, and the professionals practising there should be fully guaranteed. The Democratic Labour Party made that proposal in its 1981 manifesto.

(5) There is a dire need for home nursing care and health education in the communities and districts of Barbados. Bringing the doctors on to the pay-roll of the Government will not solve that problem. What is required is the establishment of a full-fledged Community Nursing Service through which appropriately trained nurses and nursing assistants can work with families, with the chronically ill, and with the elderly. The health and welfare of children and adults, child abuse, malnutrition, negative attitudes to mental and physical disabilities, and other impediments to sound health could be combatted through such a service, which would be less costly than the nationalized service the Government is proposing. Such a proposal was made by the Democratic Labour Party in its manifestoes for the 1976 and 1981 general elections.

Improvements needed

(6) There is need for improvements in the delivery of health care through the existing services. This cannot be achieved through the Government's proposal to set up a national health service. Rather an improvement in training an increase of resources, and an enhancement of the self-worth of all health providers, would be more helpful.

(7) There are complaints that health care in Barbados is very expensive and readily available only to those who can afford the fees, and that those at the bottom of the economic ladder suffer from inadequate medical care which is at times given under demeaning circumstances. Bringing all of the doctors under a national health service is a heavy handed and bureaucratic method of dealing with this problem, the solution for which is not for the government to pay money to the doctors, who have not asked for it, but to enable individuals as far as possible to make provision for their own health protection.

This can be achieved through the following measures: the income tax deductions for medical expenses should be substantially increased; tax credits for medical expenses should be granted to low-income or no-income earners; the Ministry of Health, the Welfare Department, the doctors, and other interested bodies can devise a system whereby the indigent will be provided with health care under acceptable conditions; special programmes for the under-fives for the over-65s, and for those who are affected with the major diseases which lead to hospitalisation and death should also be divided.

More dialogue

These can only be achieved through continuing dialogue, with no castigation, of the doctors. It should be recalled that the Democratic Labour Party in its 1981 manifesto had promised the people of Barbados drugs free of cost for children, for the aged, and for those on welfare.

I have attempted to set out what I consider to be a workable and affordable alternative to the Government's proposals for a nationalised health service. One major objection to the Government's programme is that the cost of providing health care in Barbados will escalate significantly over present costs, and it is the taxpayers who will have to carry the increased burden. Even the Government's own consultants on the nationalised health services, the Kaiser Foundation, felt it necessary to warn the Government about the costs of the proposed service by saying: "... in actuality, in the long run employees will shoulder most of the tax burden, Employers will probably raise prices to cover part or all of their tax burden, and the Ministry's portion must come from increased taxes." The Government has been less than candid with the people of Barbados about the financial impact of the proposed health service changes.

Essential service

In conclusion, other considerations should also be borne in mind. There is every probability that the actual mechanisms for the payment of doctors might be a source of dissatisfaction. As independent contractors, which is the proposed status for the doctors, they will be like the other kinds of contractors with Government who experience consistent delays in receiving payments for work done on behalf of the Government. There is bound to be disputes between the doctors and the Governments over the provision of services, and doctors, like nurses or other body of workers might deem it necessary to withhold their labour.

With their changed status, and with their incomes dependent upon the Treasury, yet another sector of independent thought will be brought under Governmental purview. Furthermore, private doctors in their capacity as independent contractors might very well find themselves being brought under the ambit of Essential Services Legislation. That is not a far-fetched possibility, as already a certain category of doctors has been threatened by a member of Government with Public Service Commission disciplinary action!

Furthermore, there is no independent Health Service Commissioner; no Ombudsman to investigate complaints from any aggrieved party in respect of health service provision. Whereas now, dissatisfaction may be a matter between doctor and patients, the distinct possibility is that there may be strike and rumours of strikes. We are certainly creating problems where none existed before!

CSO: 5440/087

BRIEFS

SALMONELLA OUTBREAK--An outbreak of the dreaded Salmonella has been reported in the Cayo District. Our sources say this disease was first detected in May but has now reached epidemic proportions. According to medical sources, Salmonella is a bacteria which infects food and animals and which could result in death. In this case, Salmonella is being found in chickens especially in Spanish Lookout, where a large number of the birds have died. Spanish Lookout is the main supplier of poultry products to the entire country. So far no warnings have been issued and the government controlled radio station has been too silent. It is to be recalled that earlier this year a number of persons in the Chiacago area died as a result of Salmonella found in milk and cheese. [Text] [Belize City THE BELIZE TIMES in English 11 Aug 85 pp 1, 12]

NEW HEALTH SERVICE CHIEF--40 year old Dr Errol Vanzie, a Belizean national has been appointed Director of Health Services in Belize. His appointment took effect from the 17th July, 1985. Dr Vanzie was born in Belize on March 12, 1945 but migrated to the Republic of Honduras in 1951 where he obtained his primary education. He then attended High School and College in Costa Rica, before attending the Autonomous University of Guadalajara, Mexico where he obtained his M.D. Degree. Dr Vanzie returned to Belize after working four years in private practice in Mexico and joined the Ministry of Health here as a Medical Officer on April 16, 1979. In August 1981 Dr Vanzie died a post graduate course in Public Health at Tulane University in New Orleans, U.S.A. where he obtained a Master's Degree in Public Health and later specialized as a Malacologist. Since January 1984 he has been employed as Director of the Malaria Programme and National Epidemiologist. [Text] [Belize City THE BEACON in English 10 Aug 85 p 1]

CSO: 5440/088

BRIEFS

PURPURIC FEVER IN RIO--The causes of the purpuric fever (purpura fulminans) which, on 15 June, killed Paulo Henrique, an infant 10 months old, and has kept his brother, Pedro Ivo, 2 and 1/2 years old, confined for 9 days at the INAMPS [National Institute for Social Security Medical Assistance] hospital in Bonsucesso (a district in the northern part of Rio de Janeiro), have not yet been diagnosed by the State Secretariat of Health. A house-to-house survey made at the condominium where Pedro Ivo's family resides, in the Riograndino district, in Nova Friburgo (140 km from Rio), revealed no symptom of the disease. After determining that neither of the two children had had conjunctivitis and that there was no evidence of the disease in the district, Claudio Amaral, director of the secretariat's General Department of Epidemiology and Disease Control, said that it is doubtful that this is the same syndrome as the 19 cases discovered last October in Promissao (in the interior of Sao Paulo State). "In all those cases the disease began with conjunctivitis; but nothing is conclusive. Until now, the Sao Paulo doctors have also not reached an conclusion about the disease." [Text] [Sao Paulo FOLHA DE SAO PAULO in Portuguese 25 Jun 85 p 21] 8568

MENINGITIS IN PRUDENTE--Presidente Prudente--The health authorities of the Regional Health Division of Presidente Prudente, 590 km west of Sao Paulo, announced yesterday that only one death from meningitis was recorded in the area in June, and not two as initially reported. The deceased is an adult whose name was not released and who resided in the rural area of Pacaembu. The parents of the little girl, Joselene Bagle da Silva, said to have been the other fatality, denied that report and gave their assurance that their daughter had recovered. According to the Regional Health Division, 28 cases of suspected meningitis occurred in June, 15 of which were confirmed by the Adolfo Lutz Institute as lymphocytic (aseptic) meningitis or viral meningitis, of benign status. [Text] [Sao Paulo FOLHA DE SAO PAULO in Portuguese 5 Jul 85 p 17] 8568

CSO: 5400/2081

RABIES OUTBREAK CLAIMS SEVEN LIVES

Yaounde CAMEROON TRIBUNE in English 31 Jul 85 p 6

[Article by Luc Tanjong ASMAC student on internship in Bamenda]

[Text]

Seven people are known to have died at the Bamenda provincial hospital following a serious outbreak of rabies in Mezam Division of the North West Province. Two others were still lying ill in critical condition.

The latest victim was a 45-year-old woman, Mary Alia Chi, a native of Akum who died on the morning of July 22, 1985. The deceased was reportedly bitten by a dog about a month ago.

The outbreak of rabies was first reported two months ago with an increasing number of dog-bite cases registered in hospital from all angles of the division. No deaths were officially known until early July. Within the last two months, more than 100 cases of dog-bites have been registered at the Bamenda preventive medicine centre and the provincial hospital.

MISERY

The alarming death toll has scared the entire population of this zone. The symptoms of hydrophobia as Mrs. Susan Abongwa Su a midwife attached to the Bamenda Preventive Medicine Centre explained, is marked by vomitting, ringing ears and contraction of throat muscles after a two-month incubation period. Death may be announced by a patient attempting to bark and bite like a dog.

In a bid to halt the spread of the epidemic, a prefectorial order signed in Bamenda on July 19, 1985 stipulated that all stray dogs, cats and monkeys will be shot on sight. Unfortunately, the signing of an order is one thing and implementation is another. Uptil now, no dog or cat has been seen to have been shot.

NO VACCINES

The Delegate of Livestock, Fisheries and Animal Industries, Dr. Andrew Eneme disclosed that with the scarcity of rabies anti-rabies vaccines has been a handicap. The 350 viles supplied by the Bamenda Urban Council are all exhausted, he said.

According to Dr. Lawrence Formabuh, a medical doctor in charge of the isolation ward at the Bamenda provincial hospital, treatment of rabies patients demands eight dozes of anti-rabies vaccines costing about CFA 80,000 francs. This may explain why some of the victims have been unable to pay for treatment on their own.

With the vaccines out of stock now in Bamenda, patients have to travel to Douala to obtain them. Dr. Andrew Eneme also revealed that a request by his department for the supply of anti-rabies vaccines from his ministry in Yaounde is yet to be met.

Another medical source said that routine vaccine supplies destined for Bamenda far back in April this year mysteriously got missing in transit.

The truth about the problem for the moment, however, is that there are no vaccines to treat victims on the spot while the toll keeps rising alarmingly. And if the animals are not eliminated in time, man will be eliminated by the animals.

CSO: 5400/186

COSTA RICA

EIGHT CASES OF AIDS REPORTED IN LAST FIVE YEARS

San Jose RUMBO CENTROAMERICANO in Spanish 15-21 Aug 85 pp VI-VIII

[Article by Lilliana Mora]

[Excerpt] First Arturo, then Jose Francisco, Hugo and Jurlan. All dead; all hemophiliacs. Who will be next?

No one knows for certain. What we do know is that all of them contracted a disease that has terrorized mankind: Acquired Immunity Deficiency Syndrome (AIDS).

All of them were Costa Ricans, with no record of homosexual behavior, ranging from 14 to 45 years of age. They were the innocent victims of a disease that apparently stems from human degeneracy.

Mario and Henry, two other AIDS victims who are also hemophiliacs, complete the list of the six cases that have been contracted in Costa Rica. They are both still alive, and RUMBO CENTROAMERICANO had an exclusive interview with them to talk about their current situation and their illness.

Two other cases of AIDS in the country involved two homosexuals who were passing through Costa Rica, one a Costa Rican and the other a Cuban. Both were deported to the United States, where they are from. Their health had deteriorated badly, to the point that they required care at the Calderon Guardia Hospital in San Jose.

No one knows whether either of them had sexual contact with anyone to whom they could have given the disease, and there is fear about the impact this could have on Costa Rica in the form of more cases. According to witnesses, they said they had had 10 to 20 contacts a day in public baths in the United States.

With regard to the four deceased persons, Dr Roberto Cordero Murillo, chief of the Hemophilia Center, told RUMBO CENTROAMERICANO that the first case was discovered in December 1980.

"A healthy hemophiliac, treasurer of the Association of Costa Rican Hemophiliacs, came to see us after suffering a bout of high fevers. He began to lose

weight, he had fungus infections in his mouth, and he had constant diarrhea. We did not know what he had." Six months later, he died.

In 1983 Cordero attended a medical conference in Hungary, where he first heard of AIDS. "I began to see studies of the disease; I came home and went over that patient's autopsy with my colleague Carlos Montero Umana. We found that his intestine had been perforated by a virus called cytomegalovirus." Patients who have contracted AIDS frequently suffer from that problem.

The other three died under similar circumstances. All had the same symptoms, and all died within a short time.

The ages of the victims were 14, 27, 30 and 44. None of the relatives of the last three, who were married, acquired the disease. "These men's wives and children have undergone a series of examinations which revealed to us that they are fine."

Nonetheless, the stigma that has been attached to this illness caused one entire family to be ostracized and completely isolated in a community far from San Jose.

"We had to explain to this family's neighbors that AIDS can only be transmitted through sexual contact or blood transfusions," added Dr Cordero. Moreover, the doctor said, aside from the infectious factor, each individual must be prone to the disease to contract it.

Mario and Henry seem to be following in the footsteps of their fellow hemophiliacs. The former, a 39-year-old man, contracted the illness 9 months ago. He refuses to accept that he has AIDS, because the widespread belief that it only affects homosexuals has made him feel very bad. He has a wife and children.

Henry is a boy of 14 years. His condition is as bad as Mario's, and is aggravated by the social conditions in which he lives. Although he knows he has AIDS, he knows little about it.

Both have very little hope of surviving, but they trust in God that they will.

Mario still works, but he must constantly miss work because his disease is worsening.

Henry is an invalid, not only because of the hemophilia that has seriously damaged his left leg and arm, but also because of the advancing AIDS.

Both are defenseless, vulnerable to any virus that attacks them. They could even die of a simple cold, which is as dangerous to them as the most serious disease.

8926
CSO: 5400/2092

INCIDENCE OF GASTROENTERITIS EXCEEDING NORMAL SUMMER HIGHS

Havana BOHEMIA in Spanish No 27, 5 Jul 85 pp 44-46

[Article by Janet Salva]

[Text] For several weeks now, comments have been heard about "an epidemic of diarrhea that has struck the population and particularly children." In order to learn what element of truth can be found in such comments, BOHEMIA interviewed Dr Enrique Galban Garcia, head of the National Department of Epidemiological Control of the Ministry of Public Health.

First of all, Galban told us, there has in fact been a seasonal rise in cases of acute diarrhea, somewhat more marked than in other years, and he noted that there is an outbreak of gastroenteritis.

"At the time of the triumph of the revolution, diarrhea was the main cause of death in infants under the age of 1 year -- typical of any underdeveloped country -- and some years ago, it dropped to fifth place. Although the disease is present throughout the year, there is an increase in the number of notifications and admissions in the summer months and every so many years, there is a rise due to ecological or adverse climatological factors such as the drought, which plays a very important role in the appearance and distribution of acute diarrhea. This is so because it is a disease closely related to hygiene of the hands, drinking water, and so on. When there is a shortage of water, when it begins to be stored or handled improperly, people no longer wash their hands every time it is necessary, which helps spread the disease. Furthermore, there is also the increase in temperature and the effect on the population of other vectors, such as flies, which are involved in transmission of the disease."

Gastroenteritis is a disease who main symptom is diarrhea, which may or may not be accompanied by vomiting, abdominal pain, fever and signs of dehydration, the latter being the main cause of death in small children. In order to inform parents and aid them to detect the disease, Galbon explained what dehydration is and how it is manifested.

"This is what is serious about diarrhea and in a small child, the characteristics are: sunken eyes, crying without tears, a wrinkled belly, dry mouth and small quantity of urine. None of these symptoms is difficult to recognize

and they are a warning that we cannot wait to take the child to the doctor. It must be done before. From the time the first diarrhea or vomiting appears, one must go to the doctor."

It is recommended that children be taken to their out-patient clinic and not to the emergency rooms. This is one of the reasons why the emergency rooms are too full, which obstructs the work with serious cases if there are large numbers of patients for reasons not truly constituting an emergency.

"Although diarrhea is important, it is not what most concerns us, but rather, the dehydration that sometimes goes along with these symptoms. Generally speaking, the manifestation of diarrhea is the loss of liquid along with the feces. That loss is what can lead those ill, especially small children, to rapid dehydration and death."

At the closing session of the Pediatrics Congress, doctors spoke of the use of oral rehydration, a medication with which the Cuban population had not previously been familiar. Since this is what doctors are now recommending during the current outbreak, we asked our interviewee to explain the method.

"Oral rehydration salts are made to prevent dehydration. It is a simple medication whose industrial preparation is relatively recent in the history of medicine and it saves many more lives than all the complex, sophisticated antibiotics that might exist. Its importance consists in applying it to children when they show the first sign of watery bowel movements, although it is naturally used in adults also. It has several advantages: It can be taken at home, the patient does not have to be admitted, it does not have the disadvantages of IV's, with infections where the needle penetrates. There is no possibility of exceeding the amount to be given and to over-hydrate the patient and no technical or skilled personnel is required at the side of the patient for administration of the salts. They have all the advantages of an IV without the drawbacks that any intravenous procedure may entail.

"It is good to know that the oral rehydration salts do not cure diarrhea, but only prevent the dehydration which, as I said, is the serious problem that goes along with diarrhea, which should improve in 2 or 3 days and disappear by itself. That is why one does not have to worry if the diarrhea continues after the medication is given, for it does not act immediately. However, the child will not become dehydrated."

With respect to the causes of the disease, Galban explained that a group of microorganisms produce it, such as different viruses, the most frequent of which are the so-called Retavirus, and different bacteria, the most common of which are the pathogenic coliform bacteria, the salmonellae and the shiquellae. There are also intestinal parasites, including the histolitic amoeba, which is most often associated with such episodes of diarrhea, although the Giardia lamblia and other parasites may also play a role.

One should know that all these causal agents have the common factor of being transmitted in water and food, when the prime importance of proper hygiene to

prevent the disease. Those most susceptible to gastroenteritis are children under 1 year of age, preschool children and the elderly.

For such contingencies, the Ministry of Public Health has drafted emergency plans to be put into effect as soon as there is a season increase in the disease. All health directorates of the organs of people's government have already received proper instructions. Galban spoke of some of them:

"Although the increase in gastroenteritis is throughout the country, the provinces most affected are the old eastern provinces. The main preventive measures are: protecting food from flies, boiling water before drinking it, observing basic hygiene and personal cleanliness, meaning frequent washing of the hands: after a bowel movement, before preparing food, handling nursing children and ingesting food. This is fundamental. It is also important, in order to eliminate spots that would attract flies, to eliminate raising barnyard fowl in urban housing areas.

"Illegal garbage dumps must be avoiding and garbage should be taken to public areas because it attracts flies and helps them reproduce. One must clean out water storage tanks and cisterns and once clean, make sure that they are properly covered to avoid contamination.

"Other measures include ensuring that garbage, both inside and outside the house, is covered. One must not eat products if one does not know how clean preparation methods are and whose sale is prohibited by Public Health and sanitation laws.

"Mothers should be well-informed about the benefits of daily bathing of nursing children, correct washing of the baby's utensiles, as well as bottles and nipples. Children's clothing should also be washed, boiled and put out in the sun.

"The Federation of Cuban Women can give us great help through the sanitary brigades, promoting nursing among pregnant women and those recently giving birth, for breast-fed babies are much less likely to suffer from diarrhea than those given other types of formula."

In rural areas, there are other important preventive measures.

"We must eliminate garbage dumping near houses and promote the burial of garbage. We must avoid going to the bathroom outside where this might be done and promote the construction of latrines, whose location, in order not to pollute the water, should be at least 10 meters from the house and 20 meters below wells, never above them. Latrines must be covered and toilet paper should be thrown inside. Wells should be covered and recipients used to take water out must be kept clean. In addition, corrals and barnyards where poultry and hogs are kept, along with other animals, must be kept cleaned."

"Doctor, you have mentioned a series of measures that depend on the parents, but others are in the hands of certain organizations. What can we do to ensure that they follow the proper rules when we see so many water tanks

uncovered, when we see so many garbage cans uncovered or with their covers broken, when there are even open sewers? Believe me, most of the flies you see in the homes are imported; they are not born there!"

"That is true. That is why we have the obligation to solve collective problems. For example, those responsible for collecting garbage have to keep to the schedule and avoid spilling garbage in the street. Organizations that run cafeterias have to keep their garbage cans clean. The swine plan must keep to its schedule to pick up garbage and the cans must be cleaned. There cannot be veritable layers of crusted garbage rotting and constituting a tremendous attraction for carriers. Waste and garbage in the streets are another problem that must be faced collectively. It must be picked up as soon as the people put it out, for garbage constitutes a breeding ground for all kinds of carriers. We have also seen the problem of sewage, for which we are asking the help of the CDR [Committees for the Defense of the Revolution] in detecting it, but the final solution is up to the pertinent organization.

"With respect to cafeterias and restaurants, they must observe the rules of hygiene noted. There are many more instructions, but these are some of the ones specifically addressed to the people."

The Ministry of Public Health has implemented a series of provisions ranging from strengthening medical care available on Saturday and Sunday to regulating vacations of all health personnel in order to prevent a large number of employees from being on vacation at once, thus affecting care available. The rest either depends on the people or the organizations in question in order to solve problems not within the scope of the population: Water tanks on flat roofs must be covered, garbage can lids must be repaired, open sewage water must be eliminated. The most important measure in fighting gastroenteritis is prevention and this is possible to a great extent if every person is truly aware of the problem and protects himself and his family. To do so, Dr Galban has given us a wealth of information and guidelines.

11,464
CSO: 5400/2087

PUBLIC HYGIENE CONFERENCE

Prague RUDE PRAVO in Czech 23 Mar 85 p 2

[Item by stk: "Conference of Hygienists"]

[Text] A 2-day conference of CSR hygienists opened in Prague on Friday. It is reviewing the fulfillment of tasks stipulated by the 16th CPCZ Congress and planning the main tasks for public hygiene for the period up to 1990. In her address the chief hygienist of the CSR, Dana Zuskova, MD, focused on individual branches of operations of public hygiene, namely, on general and communal hygiene, nutrition of teenagers and children, labor hygiene, laboratory testing methods, epidemiology and microbiology. Significant progress has been achieved, although there are problems waiting for solution. One of the most important accomplishments was, for example, the elimination of measles as epidemic infection. Our country was the first state in the world to report this successful achievement.

The director of the Institute for Hygiene and Epidemiology, Academician Bohumir Rosicky, acquainted the participants with the research tasks of the institute for the Eighth 5-Year Plan. The conference will continue Saturday with a discussion of experts from individual districts and regional public hygiene centers.

9004
CSO: 5400/3004

FIJI

BRIEFS

MENINGITIS WARNING ISSUED--Meningitis is now endemic in Fiji, according to the Health Department. The Chief Health Inspector, Mr Donald Dass, said meningitis was caused by a nematode Angiostrongylus cantonensis--which was a common lung worm in rats. He said common symptoms were severe headaches, stiffness of the neck and back, vomiting, fever and prickling or burning sensations. People could catch the disease by eating raw or insufficiently cooked snail, prawns, shrimp, fish and crabs, Mr Dass said. Lettuce and other green vegetables which were contaminated also could infect, he said. The Health Department has advised people to destroy the rat population. People should also avoid eating raw snails, fish, crabs, prawns, and shrimp. They must be cooked thoroughly. [Text] [Suva THE SUNDAY TIMES in English 28 Jul 85 p 2]

CSO: 5400/4427

DOCTOR SAYS AIDS CASES UNDERCOUNTED IN OFFICIAL STATISTICS

Helsinki HUFVUDSTADSBLADET in Swedish 17 Aug 85 p 5

[Text] (FNB)--The number of persons suffering from AIDS in our country is larger than has been reported officially. The AIDS research group being financed by the Academy of Finland reports that eight verified cases of AIDS have been noted so far in this country. Of those stricken with the disease, five have already died. Another 16 persons show symptoms associated with the preliminary stages of AIDS.

Two new cases of the immune deficiency syndrome AIDS have been reported this year. One of those stricken is a heterosexual man who caught the infection in Africa. Also established this year was a diagnosis after the fact of a patient who died of AIDS back in 1982. This year three people have died of AIDS in Finland.

Dr Sirkka-Liisa Valle, who specializes in skin diseases and sexually transmitted diseases, reports that the erroneous figures that have appeared in official reports are due to the fact that AIDS is not yet a reportable disease. But reporting it will become compulsory beginning in September. From then on, all new AIDS cases are to be reported to the Board of Health.

AIDS, which breaks down the body's immune defenses, is caused by a virus known as HTVL-III.

Valle points out: "Of those who have been stricken with AIDS in the Western countries, the majority are still homosexuals. They account for about 70 percent of all cases."

In the United States, 17 percent of AIDS patients are drug abusers who use narcotics intravenously. The virus in their case is spread by dirty hypodermic needles. A rising number of AIDS patients among drug addicts is also expected in Europe. In Italy, for example, a full 70 percent of those in the preliminary stages of AIDS are drug abusers.

Valle says: "The number of AIDS patients suffering from the blood disease hemophilia who have caught the HTLV-III virus through blood transfusions stands at around 2 percent. A number of the remaining AIDS patients have been sexual partners with AIDS patients suffering from hemophilia."

Valle, who recently participated in an international congress on sexually transmitted diseases in Great Britain, points out: "As far as this disease is concerned, the situation in Central Africa can be regarded as especially alarming."

According to the latest findings, between 10 and 30 million Africans in the region mentioned have AIDS antibodies in their blood. In Central Africa, the situation is so special that the disease is general in the entire population--that is, it appears not only in men but also in women and children.

Recent data show that more and more heterosexuals are contracting AIDS. The biggest risk of infection is run by heterosexual men who frequent prostitutes.

Valle emphasizes: "But people who have several 'loose' sexual liaisons also constitute a risk group."

A survey conducted in Africa shows that a very large percentage of prostitutes have AIDS antibodies in their blood--that is, they are potential carriers. In Rwanda, for example, 80 percent of prostitutes have HTLV-III antibodies in their blood.

Valle adds: "The percentage of infected prostitutes is also high in Zaire, Uganda, Chad, Burundi, and the Central African Republic. In Tanzania, some prostitutes have been infected."

In Finland, the special research group at the Academy of Finland and the Aurora Hospital in Helsinki have the best general view of the situation with AIDS.

11798
CSO: 5400/2557

NEW EYE DISEASE--Mr E. G. Tanoh, Secretary for Health has warned of a new eye disease called Forest Onchocerciasis which has been detected in the forest areas of Ghana. He said the disease is characterised by blurred vision and wrinkled skin and if not controlled it would affect about two-thrids of the country's population. Mr Tanoh was speaking on his return from a three-day meeting of the National Onchocerciasis Committee in Yamosoukro, Ivory Coast. He said the meeting reviewed activities and effectiveness of programmes in eliminating black flies and their attempt to find drugs to combat river blindness. [Text] [London TALKING DRUMS in English 1 Jul 85 p 24]

CSO: 5400/189

PLAN TO IMMUNIZE ALL CUYUNI-MAZARUNI CHILDREN

Georgetown NEW NATION in English 14 Jul 85 p 5

[Text]

The Cuyuni-Mazaruni Regional Health Management Committee in its programme for 1985, has set out to fully immunise all the children below school age in the Region. Head of the Committee, Regional Health Officer, Dr. E.F.L. Sagala appealed to parents for their full co-operation in assisting the Committee to achieve its target.

"It should be in the interest of parents to take their children to the clinic to be immunised" Dr. Sagala added.

According to Dr. Sagala, the programme also sets out that special priority be given to malaria control; specific actions in the areas of food and nutrition; enviromental, sanitation, sex education, since there seems to be a high incidence of adolescent pregnancy in the Region, and chronic diseases such as diabetes and hypertension.

The Regional Health Officer said that a food handlers seminar will be held shortly. Every food handler in the Region must be medically examined and be issued with a medical certificate or they will be prevented from selling to the public.

"The Regional Health Management Committee", he said, "aims to ensure that the programme outlined is fully implemented and seeks the full co-operation of all citizens within the region."

Already several public and private agencies, and individuals within the region have made donations of cash and other material to the Committee, toward the improvement of the Bartica Hospital. And the Region Seven Regional Administration has adopted the children's ward of the hospital.

Dr. Sagala said that the Committee is stressing the "primary health care" approach, and added that with the emphasis on preventive medicine, much money can be saved by both the hospital and the patient.

The Regional Health Management Committee should consist of personnel and Regional Councillors from Regions Seven and Eight.

CSO: 5440/089

AIDS DETECTION TESTS AVAILABLE TO HONG KONG DOCTORS

Hong Kong HONGKONG STANDARD in English 17 Aug 85 p 1

[Article by Paul Campbell]

[Text]

BEGINNING on Monday, laboratory tests will be carried out in Hongkong for the deadly disease Aquired Immunity Deficiency Syndrome, a service that will be available to all private practitioners.

Private doctors as well as subvented and private hospitals will be able to submit patients' blood specimens to two government laboratories for analysis and for the diagnosis of AIDS.

The tests will be carried out at the Virus Unit of Queen Mary Hospital and the Pathology Unit of the Yan Oi Polyclinic in Tuenmun.

Two types of tests will be conducted and charges will vary accordingly.

One is known as the HTLV-111 serological test and will cost $220. The other is the T-lymphocyte subsets test and the charge for this will be $250.

A spokesman for the department said all doctors have been notified that the tests will be available.

"We are happy that this AIDS test programme for medical practitioners is proceeding according to schedule and that there has been no delay in getting out test kits," he said.

The test kits are supplied from the United States.

The spokesman also stressed that all requests and results of laboratory tests and clinical consultations will be kept confidential.

The department will also provide, if required, necessary advice to doctors on the management of patients suspected of having AIDS. (See this page).

A coding system will be adopted to provide security, according to the chairman of the Scientific Working Group on AIDS, Dr E.K. Yiu.

"When the blood specimens are sent to the laboratories they will be given a code number so the laboratory chemist who carries out the test will not know the name of the patient.

"When the test is finished, the result will be sent back to us for decoding and then passed on to the medical practitioner under cover. "We are hoping people who are concerned they may have AIDS anti-bodies will submit to this test. There are several high risk groups and homosexuals are only one of them," Dr Yiu said.

The Family Planning Association will start screening its sperm bank donors as soon as possible and it will ask the government to test people who have already donated to the bank.

The FPA is taking the action following a case in Australia in which four women contracted AIDS after receiving sperm from the same donor.

The association's medical director, Dr Margaret Kwan, said 538 donors had come forward since the bank was established in 1981.

"In fact only 131 were qualified and we will try and ask these donors to come back for the AIDS test," she said.

If the test confirms the AIDS presence the semen would be destroyed as would any samples which could not be screened because of the absence of the donor concerned.

All future donors will also be tested.

CSO: 5450/0295

THREE SUSPECTED AIDS CASES REPORTED IN CALCUTTA

Calcutta THE TELEGRAPH in English 5 Aug 85 p 7

[Text] Three cases of suspected AIDS in the city were reported recently to Dr S.B. Dutta, director of the Central Blood Bank here, by three Bombay-based doctors on a visit to the city for a haemotologists' conference. According to Dr Dutta the doctors told him that the cases were haemophiliacs who had possibly contracted the killer disease from transfusions of imported Factor VIII concentrate. These could be the first AIDS cases in the country.

Mr R.N. Karmakar, Calcutta-based senior marketing executive of Ethnor Limited, the manufacturers of Johnson and Johnson blood-testing products, confirmed that he had been told by a Bombay-based haemotologist, Dr D.M. Chauhan, three cases of suspected AIDS had been detected.

According to Dr Dutta, the three residents of the city who suffered from haemophilia, a genetically-linked disease where the blood does not clot, had used concentrated Factor VIII. Factor VIII, the blood's clotting agent, is processed commercially, especially in the US, from large pools of donor blood, but not in the country.

Dr Dilip Kumar Bhattacharya, president of the Haemophiliacs' Society of India, Calcutta Chapter, who is actively involved in research and the treatment of haemophiliacs, when approached, said, "I have no knowledge of these cases but it is not entirely impossible. At present the only mode of detection of AIDS virus is to identify the presence of its antibody, called the LAV/HTLV-III. Facilities for such a test do not exist in the country. Any diagnosis of AIDS would thus be much more of a logical inference than it is in the west. We might know from the history of the patient that he has had transfusions of imported Factor VIII, and he might start suffering from acute bouts of very commonplace infections. These would kill him ultimately."

The probability of infected Factor VIII coming from abroad is not low. According to a study in the US recently, "Ninetyfour per cent of haemophiliacs treated with Factor VIII concentrate were found to harbour antibodies against the AIDS virus."

Dr Bhattacharya said, "Since the AIDS virus is common in the US, commercial processing of donor blood for the preparation of Factor VIII concentrate may result in the transmission of AIDS." Dr Bhattacharya also quoted from the *New England Journal of Medicine (Vol. 312, 1984)* which has noted, "The substitution (use) of Factor VIII, essentially a blood component, leads to high incidence of hepatitis and AIDS."

According to Dr S.B. Dutta, the screening test for hepatitis was first demonstrated in the country in 1982 at the Post Graduate Institute of Medicine in Chandigarh and it has now become a standard technique in the screening of blood. He

said that screening for AIDS was essential in order to keep the disease away from Indian shores.

Dr Bhattacharya urged that the use of Factor VIII concentrate be stopped. He suggested that fresh frozen plasma and cryoprecipitate (concentrated) plasma, which are produced in the country, be used. Dr Bhattacharya confirmed that Factor VIII concentrate was being imported. He said that it was not commonly used since a single 200 unit vial cost as much as Rs 800.

The office of the assistant controller of drugs at Customs House, Calcutta, did not seem to be aware that Factor VIII existed or that it was imported in small quantities. They said that since it was not a "bulk medical preparation" and it was not imported commercially, it was no concern of theirs.

CSO: 5450/0289

MYSTERY DISEASE BLINDS 70 CHILDREN IN KASHMIR

Calcutta THE TELEGRAPH in English 10 Aug 85 p 6

[Article by Yusuf Yameel]

[Text] Srinagar, Aug. 9: A mystery disease has blinded 70 children in Keran valley. The children are between six months and 15 years old and live in the villages of Keran, a small valley on the banks of the river Kishan Ganga in northwest Kashmir. Beyond the valley lies Pakistan Occupied Kashmir.

News about this mysterious illness was first published by a local Urdu daily, *Srinagar Times*, which said that 60 children of the villages in Keran valley had been blinded. The story was based on the complaints of some villagers who had come here to consult doctors and meet officials.

A medical team was soon sent to Keran to ascertain facts and instruct the villagers on how to prevent further blindings. However, according to report reaching here, the team members spent their time enjoying the beauty of the valley. The distraught villagers were told that equipment would soon be sent to the valley from Srinagar to cure the blind children.

The villages in the valley are scattered at distances of 3 km to 10 km. The total population of the valley is only a few thousands and the main occupation of the villagers is farming. Inhabitants of the villages have been facing hardship ever since 1948 when Kashmir was divided with the major portion of the district to which Keran belonged going to Pakistan.

Mandyaan and Boogana villages of the valley are the worst affected by the mystery disease. Most of the blindings have taken place there. "None of the children was born blind," said Izhar Khan, a villager. According to him, most of the children lost their sight at the early age of six months. Some of the victims are 12 to 15 years old.

Boogana village has a population of 200 of which 11 are blind. Bibi Parveen, a middle-aged woman of this village whose son Latif was blinded, said,"My son's eyes one day suddenly became dry and he began rubbing them. Next morning the eyes had changed their colour and become bloodshot. Soon they became white." Bibi Parveen discovered that her son had become blind.

However, the disease is not limited to children only. It has also struck some old villagers. One of them, Gulzar (60), said: "I do not know how, but I became blind a few months ago."

The villagers were initially reluctant to seek medical advise from the doctors. They thought it was God punishing them for the sins they have committed. So strong was this belief that when a woman took her blinded child to the local health centre, she had to face the wrath of her fellow villagers. The villagers' belief was further strengthened when the woman's second child also became blind. Some villa-

gers even go to the extent of saying that the blindings could be caused by an experimental atomic blast in Pakistan Occupied Kashmir.

Young men of Keran finally decided to take action and mobilised themselves to force the villagers to visit the local health centre. But the villagers complained that every time they took their afflicted children to the doctor in charge of the centre, he would tell them not to worry as it was not a serious disease.

The local health centre lacks proper equipment to diagnose the disease and is pitifully understaffed. The doctor and other attendants are absent most days. The Army has set up a dispensary at Pathra village, but it is inaccessible to the villagers. Moreover, the dispensary is equipped to treat only their minor ailments.

Officials here feel that poverty could be one reason for the blindings. But this theory is being disputed by doctors, who feel a thorough investigation is needed to find the real reasons and prevent further blindings.

The governor of Jammu and Kashmir, Mr Jagmohan, has taken a serious view of the plight of the Keran villagers. He has asked the state government to take necessary action to ascertain the reason for the blindings and provide all medical facilities to the villagers.

It was on the governor's intervention that the state health department has decided to send a team of opthalmologists to Keran. The team has been asked to submit its report within a month. If required, the affected children may be removed to Srinagar for treatment and Unicef's help sought.

CSO: 5450/0290

REPORTAGE ON SPREAD OF MALARIA IN CALCUTTA

'Most Lethal Form'

Calcutta THE STATESMAN in English 3 Aug 85 p 9

[Text] While the Calcutta Municipal Corporation authorities continue to assert that malaria has largely been contained in the city, medical sources in the School of Tropical Medicine claim that malaria cases were on the rise, especially since the start of the monsoon.

They contend that "Plasmodium falciparum", the most lethal of the four malaria parasites, is spreading in the city and the Tropical School has treated a large number of such patients recently. "Plasmodium falciparum" is the only parasite that can lead to numerous complications and even cause death.

The sources said that malaria attacks were so widespread that it was difficult to identify any specific area in the city as "malaria-prone". People afflicted with "Plasmodium falciparum" have come to the Tropical School from all parts of the city. Some recent victims came from Kalighat Road, Chittaranjan Avenue, S. N. Banerjee Road, Phears Lane, Park Street, A. P. C. Road and Medical College Hospital Staff quarters. A rectangular area in the centre of the city bordered by Mahatma Gandhi Road in the north, A. P. C. Road in the east, Acharya Jagadish Chandra Bose Road in the south and Strand Road in the west reported most malaria cases. This area, it is claimed was "hotter" than the rest of the city.

"Plasmodium falciparum" had disappeared from Calcutta in the mid-1930s. It reappeared three years ago and has since then resulted in quite a few deaths. What is dangerous about this parasite is that it has developed a resistance to the usual drugs and a more complicated therapy is being prescribed by experts. In the early 1980s the parasite spread westwards from the south-east Asian countries and entered north-east India through Burma. Aware of the danger from the parasite, the National Malaria Eradication Programme attempted to combat it. A special "Plasmodium falciparum Containment Programme" was initiated. But efforts to drive out the parasite from Calcutta have failed, the sources added.

The present situation is very much similar to the one in the 1930s when both "Plasmodium falciparum" and "Plasmodium vivax" had spread extensively in the city. The more common and less lethal "Plasmodium vivax" cases continue to be reported even now. In the past few years whenever "Plasmodium vivax" cases had risen, the number of "Plasmodium falciparum" cases had fallen correspondingly, and vice versa. In November last year when the number of "Plasmodium falciparum" patients was registering a sharp increase, the number of "Plasmodium vivax" victims was declining. However, during the past month, it was observed by Tropical School experts that cases of either type were increasing in number.

The Tropical School is not alone in receiving a large number of malaria victims. The Chetla unit of the All-India Institute of Hygiene and Public Health has treated nearly 150 patients lately. Malaria is widespread in the rural areas too, and the Institute's Singur unit in Hooghly has also admitted a large number of malaria patients.

A senior official of Calcutta Municipal Corporation, however, claimed that malaria was on the "decline" in the city. He said that about 200 "Plasmodium falciparum" victims were treated every year on an average and this has been the norm for the past three years. He denied that there was any exceptional increase in malaria lately.

Health Minister's Concern

Calcutta THE STATESMAN in English 9 Aug 85 p 9

[Text] Mr Ramnarayan Goswami, Minister of State for Health, admitted in Calcutta on Wednesday that the spread of malaria in the city was causing concern. He said that the situation had been aggravated by the accumulation of water in the Metro Rail trenches.

The Calcutta Municipal Corporation and its adjoining municipalities were responsible for carrying out the eradiction measures. The State Government would help if it is approached, he added. So far, he said, seven persons had died of malaria in Kumargram in Jalpaigurl. In its anti-malaria drive, the State Government's Health Department had collected over 500,000 samples of blood slides and was expected to collect another 500,000 samples. He said it was found that attacks were concentrated in districts bordering Bihar, Orissa and Bangladesh.

Central Health Ministers had cancelled combined meetings of the eastern States twice in recent times and thereby frustrated an integrated approach to tackle the disease he said.

CSO: 5450/0292

BRIEFS

CHOLERA-AFFECTED DISTRICT--(PTI)--The Nasik collector has declared this district as "cholera-affected" and appointed Dr. D. G. Godwami, district health officer as special cholera control officer. Four cases of cholera has been reported from the district, an official release said on Saturday. As a precautionary measure people of the district have been directed not to consume stale food and drink boiled water only, the release added. An appeal has also been made to report cases of vomitting and diarrhoea to the nearest primary health centre. [Text] [Bombay THE TIMES OF INDIA in English 15 Jul 85 p 4]

MAHARASHTRA GASTROENTERITIS STATISTICS--BOMBAY, July 15--Gastro enteritis has claimed 149 lives in the state between April and July. Making a statement in the state legislative assembly today, the health minister, Mr. Bhai Sawant, said that 3,761 persons had been affected during that period, with 16 persons succumbing in Bombay alone. Countering allegations from opposition benches that the administration was negligent and lax in countering the growing menace of gastro, Mr. Bhai Sawant observed that the disease could not be completely eradicated in the near future. The three causative factors, according to the minister, were: contaminated water, putrid and rotten food and inadequate personal hygiene. [Text] [Bombay THE TIMES OF INDIA in English 16 Jul 85 p 1]

RAJPUR DYSENTERY DEATHS--RAIPUR, July 21--Nine children died owing to dysentery after they drank water from an abandoned well in Seoni Kurud village of this district in the first week of this month. About 30 people who were also affected by dysentery, which broke out in an epidemic form, have been admitted to the primary health centre after a medical team was rushed to the village, reports reaching the district headquarters said here yesterday. The collector, Mr. Ranvir Singh, has ordered an inquiry into the delay on the part of the officials at the health centre in rendering medical assistance to the affected people. [Text] [Bombay THE TIMES OF INDIA in English 22 Jul 85 p 14]

MYSTERY DISEASE DEATHS--Bhubaneswar, July 22 (UNI)--Eight persons died on Thursday of an unknown disease in Limda and Laxmipur villages in Koraput district, according to the minister of state for food and civil suplies, Mr Mabibullah Khan. He told UNI here today that it was suspected that the deaths were due to consumption of unhygienic food. The symptoms included speechlessness and blood-shot eyes. Mr Khan, who visited the area on Friday, said the chief district medical officer had been instructed to rush to the villages and organise preventive and curative measures. [Text] [Calcutta THE TELEGRAPH in English 23 Jul 85 p 5]

CALCUTTA CHOLERA REPORT--Calcutta, 2 Aug--Mr Sachin Sen, CPI(M) MLA, at a meeting with the deputy mayor of Calcutta Municipal Corporation (CMC), Mr Moni Sanyal, today complained about two cholera deaths in the Dharmatola Road area of Kasba in south Calcutta. Mr Sen said two persons residing at 9A Dharmatola Road and at 3B Dharmatola Road had died of cholera this morning. The deputy mayor immediately asked the CMC chief health officer, Dr S. Chowdhury, to take necessary measures. Dr Chowdhury told newsmen that "Whether the deaths were due to cholera could only be proved after the medical reports of those dead were received." He maintained that there had been "no cholera deaths in the city in the past one year." However, he said he would immediately depute medical teams to the area to disinfect the garbage dumps, drains and innoculate the people. [Text] [Calcutta THE TELEGRAPH in English 3 Aug 85 p 2]

MEASLES AMONG TRIBALS--Gwalior, 10 Aug (UNI, PTI)--Seven children have died of measles in ten days up to 4 August at the predominantly tribal village of Majara Nayapura, 32 km from here, in Gwalior district, according to official sources. The district administation in a release issued here stated that as soon as the report was received at Barari primary health centre, 15 km away, on 4 August, a doctors' team was rushed to the village. The situation has been under control since. No person has died of measles there since 4 August, the release added. The Adivasi village has a population of 250 of whom 75 are children. Eleven of them aged between one and five years died of measles during the last one month, according to parents of the deceased. However, the medical survey has counted only seven deaths and given the number of affected as 19. The condition of the affected persons is under control, according to the survey. [Excerpt] [New Delhi PATRIOT in English 11 Aug 85 p 5]

MALARIA IN JALPAIGURI--Jalpaiguri, 4 Aug--Malaria has claimed 15 lives in several villages in Jalpaiguri district during the past few days, according to the district medical department, reports PTI. The unofficial figure, however, put the death toll at 26. Officials said they had so far detected 5,172 cases of "positive malaria" in the district. The affected areas are: Alipurduar 1 and 2, Kumargram, Falakata, Madarihat and Nagrakata blocks. Sources said that the district malaria department could not provide adequate medical care to the affected people owing to shortage of health staff as the department was running with 281 staff against 435 sanctioned posts. An inter-state meeting of district officials was held at Dhubri with representatives of the World Health Organization to work out preventive measures. A team of experts, including the WHO representatives, visited some border villages of Bhutan to study the situation. According to the Health Department experts, the rate of malaria cases in the districts of Assam bordering West Bengal is higher than that of North Bengal. [Text] [Calcutta THE STATESMAN in English 5 Aug 85 p 7]

CSO: 5450/288

BRIEFS

NEW DRUG DISCOVERY--A professor at the School of Pharmacy at Esfahan University has succeeded in preparing a drug that can get rid of stones in the kidneys and in the urinal tract without resorting to surgery. The drug is called AUL [no further expansion] and is extracted from eight types of medical herbs. A series of experiments have proven that the drug has no side effects. The drug was used on 3,000 patients and has proven to be more than 90 percent successful. [Summary] [Tehran International Service in Arabic 1430 GMT 26 Aug 85]

CSO: 5400/4711

JAMAICA

BUDGETARY RESTRAINTS BRING HOSPITAL CLOSINGS

Kingston THE DAILY GLEANER in English 13 Aug 85 pp 1, 3

[Text]

Eight more hospitals are likely to be closed if alternate financing is not found to support the health services. The Minstry of Health is unable to maintain the present level of services because of a reduction in its budget.

Two hospitals have already been closed under the Ministry's rationalisation programme. These are the Isaac Barrant in St. Thomas and Buff Bay in Portland. Primary care services are now being offered in addition to maternity services and facility for emergency care at these institutions.

The proposed closure of 8 more hospitals was discussed at a Ministry of Health retreat held in Runaway Bay, St. Ann, over the week-end. Main objective of the retreat was to examine the budget and see how the money could be utilised to maintain the services.

In an interview with the Gleaner's Western Bureau, the Hon. Dr. Kenneth Baugh, Minister of Health, said the retreat was "quite conclusive but a lot of work has to be done first before we can make any move... We are collating all the material and over the next two weeks some intensive work is going to take place in the regions to finalise the arrangements we have in place."

The **Gleaner** was told by another source that there was not enough money to maintain full services because of the cost. The Ministry was looking to reduce services in some areas and the hospitals were the mostly likley targets because they absorbed much of the money. If the proposals were implemented there was likely to be increased facilities in primary care and less in secondary care, the area under which hospitals fall.

It is understood that the Falmouth, Ulster Spring, Alexandria and Port Maria Hospitals are some of those to be affected. Though the matter was discussed at length, no final decision on the closures was taken at the retreat. It is understood that the matter is to be discussed with the hospital boards to see if they can arrange alternate funding.

It is also understood that the hospitals identified for closure are those which have been having problems with doctors and a severe shortage of staff. There has been no resident doctor at the Alexandria Hospital for over one year now and the nursing staff have to be taking care of patients.

Certain criteria were taken into account in identifying the hospitals and these included the population served, the number of patients being seen, bed capacity and the services offered.

The difficult situation in the health services was outlined to the enrolled nurses by Dr. Horace Chang, Parliamentary Secretary, on July 29. He had said then that 1985 was going to be a difficult year in the Ministry and had pointed out that in the economic situation today, the country could not afford the cost of the health service "we currently have."

Dr. Chang said: "We will have to make decisions. These decisions will not be easy but they are decisions that will have to be faced during 1985. It will be difficult because health is a sensitive issue and the health of the nation is critical."

It was pointed out that with the likely closure of some rural hospitals, there would be an increased burden on the remaining hospitals and particularly the Kingston Public which offered certain specialist services.

Already, KPH cannot cope with the present demand on its services because of the acute shortage of nursing personnel. The situation at the hosptial is extremely difficult on week-ends and holidays. It is not unusual to find only two and sometimes one nurse on a ward with 40 and more patients. The afternoon and night shifts are most affected by the shortage.

Checks by the Gleaner on some of the reasons for the grave difficulties on week-ends and holidays, revealed that nurses were no longer willing to offer their services for sessionals and overtime because of the lack of payment. Some have not been paid for work done since May.

Informed sources told the Gleaner that the difficulties being experienced were going to have serious implications because it was likley that the Government's commitment not to lay off professional staff would not hold. "It seems inevitable that professional staff will be laid off in the cost saving measures," one source said.

With the proposed closure of institutions to save on expenditure, the future of nurses from the training schools seems uncertain. Twenty-nine nurses who graduated from the Bellevue School of Nursing in April are still awaiting letters of employment from the Ministry of Health while only about 22 of the 33 graduates from the University Hospital School have been employed.

Because of the difficulty in employing the nurses, the University Hospital has released some of them from their bond. Nurses are bonded for at least two years to serve in the government service and therefore are not eligible for employment elsewhere unless released by the government or the University Hospital.

Seventy-seven nurses are expected to graduate from the Kingston School of Nursing in October.

There is also the possibility that there will now be a reduction in training. Dr. Chang in the same address to enrolled nurses had said that training was unlikely to be expanded under the present economic situation. The training programme for enrolled nurses has been suspended for nearly three years now, due partly to differences between the registered nurses who supervise the training and the Ministry of Health. The last batch of enrolled nurses graduated from the school in 1982.

Under the present situation, questions are being raised by persons in the health service about the Government's implementation of the International Labour Organisation's convention which was ratified by Jamaica in May, 1984. This convention deals with the ultimate improvement in conditions for nurses in the health service.

CSO: 5440/085

RISE REPORTED IN KUALA LUMPUR DENGUE CASES

Kuala Lumpur NEW STRAITS TIMES in English 5 Aug 85 p 3

[Text]

There has been an increase in the number of dengue and dengue haemorrhagic fever cases in the first seven months of this year.

City Hall said in a statement today that there were 26 cases between January and July this year compared with 18 during the same period last year.

Meanwhile, its Health Department will carry out a campaign against dengue fever and dengue haemorrhagic fever in several areas beginning tomorrow.

The department will conduct checks in Bangsar on Aug 5, Gombak 4¾ mile to 5½ mile (Aug 6), Jalan Kuchai Lama (Aug 7), Jalan Kelang Lama (Aug 8), Jalan Cheras, from the Ikan Mas Flats to the Cheras Flats (Aug 9) and Taman Maluri (Aug 10).

The public has also been urged to co-operate in efforts to prevent the breeding of the aedes mosquito by ensuring that there were no breeding places for it.

CSO: 5400/4426

MOZAMBIQUE

FLEAS ATTACK DROUGHT VICTIMS

Maputo NOTICIAS in Portuguese 18 Jul 85 p 3

[Text] In 1983, at the height of the drought, as in other provinces affected by this disaster, Inhambane registered high rates of malnutrition, severe anemia, emaciation, vitamin deficiencies, skin ailments and conjunctivitis, as well as diarrhea, which resulted in elevated neonatal and infant mortality. This led to the creation of special multiservice centers to take in orphaned and abandoned children whose physical and mental development was severely threatened.

Although the nutritional standard in these centers can now be considered normal, sanitation is still causing some health problems; certain skin diseases, for example. Both in Muele and in Pambarra, we saw children from 2 to 12 years of age who were suffering from chiggers. This small flea burrows into the feet and hands, under the nails, between the toes, in the heels and other sensitive areas. It breeds in sandy and dusty soils.

The older ones say that the chigger's worst enemy is rain. Health authorities declare that, in addition to the rain and general and personal hygiene, the problem can be prevented by applying petroleum to the feet and hands, particularly before going to sleep, but this is not feasible because of the petroleum shortage in the country. There is also a shortage of water, soap and creosol preparations to cleanse the bites, for want of other more effective medication.

Under these conditions, the sand fleas tend to reproduce rapidly, creating more skin lesions, to the point of immobilizing the affected members and spreading quickly to neighboring areas. This is currently happening at the Muele and Pambarra centers, which now shelter 263 children. As we said, most of them are already suffering from the chiggers.

6362
CSO: 5400/181

HEALTH MINISTER ANNOUNCES HOUSE SPRAYING

Maputo NOTICIAS in Portuguese 22 Jul 85 p 1

[Text] Dr Pascual Mocumbi, Health Minister, announced last Saturday the resumption this year of systematic campaigns to spray all homes in the city of Maputo for mosquitoes, which are active carriers of malaria and insects which carry various other diseases. According to the health minister, this effort will begin before the hot season, which is the time when mosquitoes are most active. It will be directed by the Maputo City Health Administration with the assistance of neighborhood political and administrative authorities.

Health Minister Pascoal Mocumbi, speaking to residents at the Malanga Neighborhood Commune at the beginning of Nationalization Week, a part of the commemoration of the tenth anniversary of National Independence, said that the spray campaign will include special days to drain and clean up standing water and vacant lots where mosquitoes breed.

"This effort will be directed by the Maputo City Health Administration through the Preventive Medicine and Examination Office, including the Hygiene and Health sections of the City Council as well as neighborhood administrative and political authorities," said Dr Mocumbi, who then called upon those officials to begin mobilizing the public.

Malanga Neighborhood Exemplary

Speaking about the campaign to check polio vaccination certificates which was carried out from house to house Saturday morning by some 90 students from the Maputo Health Sciences Institute in the Malanga neighborhood, the health official congratulated the high level of participation of neighborhood women in prenatal care, stressing that out of a total of 15,000 residents checked, only 800 were discovered to be in need of vaccination for polio and 33 who had not yet had a prenatal exam.

"The residents of the Malanga neighborhood are to be congratulated, especially the nucleus of the Organization of Mozambican Women, which was able to mobilize women on the need to maintain their children's health by rigorously following vaccination and prenatal exam schedules," added Dr Mocumbi. Luisa Chadreque, 17, a student at the Maputo Health Sciences Institute, told NOTICIAS' reporters that the campaign was basically designed to mobilize mothers to follow vaccination and prenatal exam schedules as a means of preventing diseases which strike children, including poliomyelitis (infantile paralysis).

8844
CSO: 5400/171

MOBILE BRIGADE IMPLEMENTING VACCINATION CAMPAIGN

Maputo NOTICIAS in Portuguese 9 Jul 85 p 3

[Text] A mobile brigade from the Macomia District Health Center in the province of Cabo Delgado recently undertook a vaccination campaign against measles, tuberculosis and tetanus in the communal settlements of Inkoi, Nguida, Mitacata, Milamba and Imbuani.

Sousa Nivale, the director of the health center, said that the vaccinations are designed to prevent diseases the incidence of which has concerned the local health authorities.

The Macomia Health Center can accommodate 30 patients per month, and it has wards for seriously ill patients.

However the lack of patient beds, especially for those most seriously ill, has been a concern of the administration of this health unit, since there are only 12 beds available for patients in the worst condition. The maternity ward has four mattresses [as published].

The shortages of medicines, scales for weighing the patients and food for improving their diet are other difficulties being experienced by the center.

The center has no ambulance, a fact which forces patients who need medical aid in Pemba to travel great distances to the nearest highway control point to request transportation to the provincial capital.

This hospital center has also experienced the frequent disappearance of mattresses. According to nurse Faustino Tomola and midwives Luisa Pascoal and Maria Luisa Barquito, three mattresses disappeared recently.

They say that the mattresses went with patients who were transferred to Pemba.

5157
CSO: 5400/169

BRIEFS

POLIO VACCINATION FOR CHILDREN--The Center for Preventive Health and Medical Examination, of the Health Directorate of the City of Maputo, recently launched a campaign to revaccinate children under 2 years of age against poliomyelitis (infantile paralysis) in the nation's capital. According to Dr Oscar Monteiro, director of the center, the new campaign was dictated because some polio cases had been detected in the city, despite a previous vaccination campaign against the disease. "In view of the situation, we sent some of the vaccine used in that campaign to the WHO, and the organization has informed us that the vaccine had lost some of its potency," Oscar Monteiro reported. He added that, since this report was cause for concern, the center had opted for the preventive measure of a revaccination campaign. To that end, health agents in the various health posts and centers in Maputo are engaged in informing and mobilizing parents to bring in their children to be vaccinated. As a result of this effort, Dr Monteiro said, many mothers have come to the health centers and 800 children were vaccinated in just 7 days, a record number of vaccinations among children in the city of Maputo. [Text] [Maputo NOTICIAS in Portuguese 29 Jul 85 p 2] 6362

VACCINATION CAMPAIGN IN INHAMBANE--The city of Inhambane recently launched an accelerated vaccination program against several epidemic diseases, beginning with a seminar for the brigades which will conduct this action in the districts and cities. The project, which has UNICEF support, is national in scope; Inhambane was chosen as the pilot province for the program. Based on the results achieved here, the program will be extended throughout the country, on an annual basis. During the 3 months of the experimental phase, the project is expected to reach about 70 percent of children under 2 years of age and pregnant women, to curb outbreaks of measles, poliomyelitis (infantile paralysis) and tetanus, which devastated infants in Inhambane Province last year. In addition to health workers, the 6-day seminar will be attended by representatives of the mass democratic and humanitarian organizations, whose role in the program will be to educate the public on the importance of the project. [Text] [Maputo NOTICIAS in Portuguese 30 Jul 85 p 3] 6362

POOLS DRAINED TO PREVENT MALARIA--A drainage campaign to eradicate malaria-carrying mosquitoes will be undertaken by the public and coordinated by the Mucharo Neighborhood Public Health Clinic in the city of Pembia, Cabo Delgado Province. According to the Social Communication Office, local health authorities have also encouraged the public to raise small animals, to diversify diets, and especially to combat malnutrition in children. Head Nurse Constantino Jose added that campaigns to educate children not to play in standing water have been carried out by the health office in order to prevent bilharziasis, a disease which normally affects children. The Muchare Neighborhood Public Health Clinic treats an average of 60 patients a day who live in the communal neighborhoods of Mahati Chuiba, Muitua Miese, Nacopo and Namilia. The clinic was opened in 1981 in a house used as a dormitory by traffic police. Remodeled into three areas for examination, diagnosis, pediatric care and injections, the clinic is run by two nurses and an aide with the assistance of two technicians from the Pemba Provincial Hospital once a week. The most frequently treated diseases are malaria, skin conditions, malnutrition, anemia and others. The shortage of water is such a serious problem that neighborhood residents bring water required to treat the patients to conserve the clinic's own supply. [Text] [Maputo NOTICIAS in Portuguese 13 Jul 85 p 2] 8844

CSO: 5400/171

BRIEFS

DENGUE OUTBREAK--More than half a million people have been affected by denuge in Managua Department. The Health Ministry will be carrying out a campaign against the disease with the participation of 26,000 health brigade members throughout the country and an investment of 74 million cordobas. [Summary] [Managua Sistema Sandinista Television Network in Spanish 0200 GMT 28 Aug 85]

CSO: 5400/2095

BRIEFS

SNAIL FEVER ERADICATION--Hangzhou, 5 September (XINHUA)--Snail fever--a once widespread parasitic disease--has been wiped out in another four counties in Zhejiang Province, according to local medical officials. This has brought to 16 the number of counties in Zhejiang to eradicate the illness, also known as schistosomiasis, which causes damage to the intestines and bladder. Medical officials have surveyed 135 villages in Jiashan, Yinxian, Yuyao, and Shaoxing counties since May. They discovered that no case of snail fever had been recorded there over the past six years. Nationwide, snail fever was formerly prevlaent in 348 counties and cities in southern and eastern China. By last year, it had been eradicated in 250 of the affected places. The number of people suffering from it dropped to one million from 11 million. [Excerpts] [Beijing XINHUA in English 0646 GMT 5 Sept 85 OW]

CSO: 5400/4151

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POLAND

GEOGRAPHIC PATTERNS, CHANGES IN HEALTH CARE SERVICES ANALYZED

Warsaw WIADOMOSCI STATYSTYCZNE in Polish No 5, May 85 pp 8-12

[Article by Dr Lucyna Szczerbinska, Statistical-Economic Research Institute, Regional Workshop in Kacow]

[Text] One of the requirements for maintaining public health is an efficient health care system. For the proper management of public policy in this area, and to achieve extensive and objective changes in the existing health care infrastructure, as well as for setting criterial for investment, use is made of statistics, both qualitative and quantitative, dealing with this area of public service.

This analysis deals with the health care infrastructure defined as "a deliberately deployed network of facilities in appropriately designed nd functional locations which can flexibly meet public needs, which change both in space and time, for medical care, making use of scientific-technical progress, by a socially and professionally highly qualified staff working in a definite organizational-legal system."[1]

This description covers basic and auxiliary services directly related to in- and out-patient care for the general public and selected groups (e.g. mothers and children, industrial workers).

This article will deal with the differing levels of health care in the provinces and the changes which have taken place in this area from 1975 to 1983. The health care infrastructure is considered from the following points of view:[2]

a) material base (buildings and equipment), b) medical personnel, c) health service activity, and d) finances.

In assessing the level of each of these elements, a set of indicators was used; they can be calculated on the basis of material published in specialized health care yearbooks and statistical yearbooks put out by the Main Statistics Office. Thus, the material base is represented by the following aspects:

--dispensaries per 10,000 urban inhabitants,

--health centers per 10,000 rural inhabitants,

--emergency care departments and stations per 100 km^2,

--ambulances per 10,000 inhabitants,

--total hospital beds per 10,000 inhabitants,

--beds in psychiatric institutions per 10,000 inhabitants,

--beds in hospitals for newborn and premature infants per 1000 live births,

--epidemiological stations per 100,000 inhabitants.

Medical personnel is characterized by the following indicators:

--physicians and dentists employed per 10,000 inhabitants,

--nurses per 10,000 inhabitants,

--midwives per 1000 women from 15 to 49 years of age,

--pharmacists and pharmaceutical technicians employed in pharmacies and pharmaceutical outlets per 100,000 inhabitants.

Health service activity is expressed in the numbers of:

--consultations with physicians and dentists in clinics per urban inhabitant,

--consultations with physicians and dentists in rural health care centers per rural inhabitant,

--X-ray examinations per 1000 inhabitants,

--ambulance trips to illnesses and accidents per 1000 inhabitants,

--outpatient first aid services per 100 persons,

--consultations in industrial health service clinics per 100 persons covered by that care,

--total number of patients in hospitals per 10,000 inhabitants,

--consultations with pregnant women under outpatient care per live birth,

--consultations under outpatient care for urban children per child from 0 to 15 years of age.

Finances include the following data:

--health and social care ministry investment outlays per inhabitant,

--local current budget expenditures for health and social care per inhabitant,

--gross value of funds allocated to health and social care per inhabitant.

In comparing provinces with regard to their level of health care, an aggregate measurement was used.[3] Each indicator is expressed in relative quantities, making it possible to add them up, i.e. in the form of a measurement of geographic concentration, defined by the formula:

$$k_{pn} = \frac{w_{pn} \cdot 100}{w_{p\ max}}$$

k_{pn} --relative geographic concentration of feature p in province n,

w_{pn} --value of the indicator of feature p in province n,

$w_{p\ max}$ --highest value for feature p among all the provinces.

This measurement thus represents the relative level of each spatial unit in relation to the highest level achieved for a given feature. When we add up the values for various aspects of health care, we arrive at an aggregate measurement of geographic concentration of equipment, personnel, activity and finances. The relevant data for 1975, 1980 and 1983 are contained in tables 1 and 2.

In the next stage of aggregate calculation, the four measurements mentioned above are combined into a general indicator of the geographic concentration of the health care infrastructure (Table 3). This material enables us to order the provinces according to their development in particular areas and classify them into groups which, arranged on maps or charts, facilitate spatial analysis of this phenomenon.

The Material Base of Health Care

Providing the provinces with buildings and equipment for open and closed health care, emergency care, pharmacies and epidemiological services remains on a rather low level in relation to the optimal standard. In first place among the provinces is Gorzow, which in the area of nine features characterizing this aspect of the infrastructure has achieved the maximum per capita total number of beds in hospitals and in psychiatric institutions, as well as ambulances and epidemiological stations. After Gorzow, only 2-6 provinces are in the class with a good material base, including: Jelenia Gora, Walbrzych, Slupsk, Lodz and Wroclaw.

In 1975 the provinces in the good and medium categories are in the northern and western parts of the country (Olsztyn, Suwalski, Bialystok), from Gorzow to Opole, and in central Poland (Lodz, Skierniewice, Warsaw). The remaining, much larger part of the country consists of provinces with a low or very low level material base. It is true that the average indicator of geographic concentration did improve in 1980, but the economic crisis was reflected in a lower material base standard in nearly one third of the provinces. The differences in the indicator for 1975 and 1980 show an increase in the distance form the optimal level, especially in the provinces of Warsaw, Zielona Gora, Katowice and Siedlce. However, one can see a sharp decline in the number of units least developed with respect to long-term health care: from 14 in 1975 to 3 in 1983. These provinces form a compact region in central Poland from Kalisz through Wroclawek to Lonza, in addition to a few islands in the southern part of the country. In the coming years these areas are to be reduced, an in 1983 insufficient material provision is seen only in Tarnow, Piotrkow and Konin.

The data in Table 1 show an improvement in the over-all state of the material base of health care in 1983, but with a greater geographic differentiation than in 1975. This is shown by the increase in the coefficient of variability from 11.8 to 12.8. Differences in the concentration indicator over 8 years show the development in the base especially in the provinces of Ciechanow, Krosno, Lomza, Plock, Zamosc, Suwalki and Legnica. Apart from the dynamic changes observed in the above-mentioned units, one can also see a stabilization, e.g. in Gorzow, Koszalin, Opole with a good standard, or in Tarnow, Piotrkow and Konin, which consistently rank last among the provinces.

Distribution of Medical Personnel

The number of medical personnel in comparison with other countries is one of the positive aspects of the Polish health care service. As early as the late 1970s, when there were 18 doctors per 10,000 inhabitants, we had reached the average level for developed countries (at that time there were 15.3 in Britain, for example, 17.2 in France, 16.6 in Holland, 13.2 in Japan, 18.2 in Canada, and 20.2 doctors per 10,000 inhabitants in the USA, but in Czechoslovakia there were already 25.3 and in Hungary 23.1). At present we are behind most countries in Europe, including all the socialist countries except Yugoslavia and Romania.

In spite of the high level of employment in health care, in many regions of Poland there is a shortage of medical personnel. One reason for this is the significant geographic differentiation among trained personnel and the disproportion for employment between the cities and countryside. The proportion of doctors actively practicing medicine as opposed to those performing administrative functions is an important problem.

The aggregate measurement used in the present analysis covers the employment of physicians, dentists, nurses, midwives and pharmacists in proportion to the population. Table 1 shows that the distribution of trained personnel is uneven, especially in 1975, as can be seen from the coeffficient of variability, 23.5, the highest in this area of health care. This indicator ranges from 87 and 82 in the Lodz and Warsaw provinces to 33-34 in Ostroleka, Siedlce and Ciechanow. Nearly half the provinces in 1975 were in the lowest class of

development. These provinces are concentrated for the most part in the central and eastern parts of the country. In contrast to them, Bialystok, Warsaw, Lodz and Cracow had the highest concentration of personnel.

In the next years, despite the general economic crisis, there was significant improvement in the area of employment. A sharp reduction in the number of provinces with insufficient medical personnel is accompanied by an increase in the areas with average or slightly below average supply thereof. In 1983 we have 16 provinces with a high concentration of medical personnel; these are former provincial capitals or locations of medical schools, and include, in addition to the four mentioned above, Wroclaw, Szczecin, Lublin, Katowice and Poznan.

Comparing the differences in the aggregate indicator in table 1, we can see a dynamic increase in personnel over a period of eight years in Bielsk Podlaski, Chelm, Legnica, Olsztyn, Rzeszow, Koszalin and Katowice, as a result of which these provinces move from the low to the medium or good category. The indicator also rose substantially for the provinces of Ciechanow and Ostroleka, but in spite of that they still belong, together with Siedlce and Leszno, to the least advanced areas with respect to personnel.

A positive phenomenon observed during this period is the tendency of geographic differences in personnel to level out, which is confirmed by the decreasing coefficient of variability.

Geographic Distribution of Health Service Activity

Medical service activity represents the frequency of consultations in open health care institutions, the number of hospital patients, ambulance trips and X-ray examinations performed. This activity is the only area where largest group of provinces (63 percent) reaches the level of good or average in relation to the optimal national standard, while provinces in an especially difficult situation account for the smallest proportion (7 percent of the total). From this we may conclude that in spite of significant shortcomings in the material base, shortages of funds and especially of trained personnel, in many regions of the country intensive health care activity has taken place, not far below the level of better supplied provinces. As an example we may refer to the coefficient of the geographic correlation between medical personnel and the functioning of the health care service; in 1975 this coefficient was $r=0.717$, but in 1980 and 1983 we see a decline to a level of around 0.55.

The most advanced provinces in the area of public health are Wroclaw and Lodz,and in 1983 also Szczecin, Poznan and Bialystok. From the beginning of the period under consideration, the baltic and western provinces showed great activity; after a regression in 1980, the situation also begins to improve in southern Poland.

The data in table 2 indicate: 1) a reduction in the differentiation between provinces with respect to health care services, 2) a high level for the indicator compared to other areas in 1975, but small growth over 8 years, 3) favorable changes in regions with insufficient medical care, especially in Bielsk Podlaski and Zamosc, as well as in Lomza, Konin and Leszno, and

TABLE I: GEOGRAPHIC CONCENTRATION INDICATORS FOR HEALTH CARE INFRASTRUCTURE

(1) Wyszczególnienie	(2) Zakłady i urządzenia			Personel		
	1975	1980	1983	1975	1980	1983
Polska	**52,98**	**53,30**	**56,16**	**57,30**	**62,73**	**66,29**
Stołeczne warszawskie	57,39	49,42	54,77	82,28	81,53	85,01
Białskopodlaskie	55,96	57,40	63,69	39,30	53,44	58,88
Białostockie	64,39	63,10	62,72	74,07	79,52	82,10
Bielskie	49,52	47,22	51,44	50,45	54,58	60,38
Bydgoskie	51,51	50,39	52,28	55,05	60,95	62,65
Chełmskie	54,12	55,56	59,74	43,61	55,24	60,49
Ciechanowskie	48,44	51,02	59,83	34,01	45,07	49,56
Częstochowskie	52,01	52,62	54,44	56,68	61,61	64,01
Elbląskie	52,94	55,22	55,94	43,58	48,60	50,13
Gdańskie	54,76	50,40	52,69	68,74	70,61	63,12
Gorzowskie	76,49	79,98	74,54	54,94	67,71	68,67
Jeleniogórskie	67,59	66,70	67,53	53,61	60,08	61,16
Kaliskie	47,61	52,46	56,33	45,46	51,91	54,54
Katowickie	56,84	51,11	54,89	60,03	66,15	71,89
Kieleckie	53,66	53,77	58,11	60,00	65,53	68,21
Konińskie	43,53	46,08	48,80	43,18	51,47	54,02
Koszalińskie	57,03	59,45	61,98	49,68	59,90	64,21
Miejskie krakowskie	51,23	48,91	51,45	73,84	75,03	80,97
Krośnieńskie	49,86	54,68	61,77	50,35	51,12	62,75
Legnickie	51,03	53,59	59,85	47,33	55,95	62,67
Leszczyńskie	57,70	58,05	57,30	39,66	45,86	47,37
Lubelskie	54,13	55,61	58,27	63,67	71,01	72,01
Łomżyńskie	48,59	54,68	59,02	48,99	58,15	61,06
Miejskie łódzkie	63,16	63,93	66,61	87,24	83,93	86,63
Nowosądeckie	54,35	50,42	54,83	50,88	57,93	62,74
Olsztyńskie	59,40	59,62	61,86	50,97	58,26	67,07
Opolskie	60,90	61,50	63,37	51,84	56,73	59,59
Ostrołęckie	49,29	53,73	55,73	33,41	46,75	48,14
Pilskie	56,18	53,20	56,68	40,99	50,68	54,43
Piotrkowskie	46,53	48,99	48,73	48,00	54,04	59,91
Płockie	49,46	53,11	58,69	48,36	51,62	58,07
Poznańskie	52,16	52,76	55,50	67,92	68,51	70,26
Przemyskie	56,67	60,72	62,48	53,13	62,15	66,66
Radomskie	49,67	52,05	55,27	47,74	52,25	52,87
Rzeszowskie	52,14	51,85	55,25	49,80	51,01	67,87
Siedleckie	54,98	49,93	50,77	33,72	38,25	42,18
Sieradzkie	56,28	66,07	60,81	46,82	55,26	57,80
Skierniewickie	57,00	57,22	60,37	44,26	51,61	55,49
Słupskie	62,26	65,31	66,35	52,67	59,13	59,03
Suwalskie	57,00	63,17	65,24	51,21	57,93	62,08
Szczecińskie	51,56	50,52	56,61	66,27	77,71	72,74
Tarnobrzeskie	51,07	50,26	54,21	48,39	56,43	57,75
Tarnowskie	43,02	47,34	49,31	41,66	49,30	52,14
Toruńskie	44,32	47,71	52,31	46,26	50,99	57,55
Wałbrzyskie	61,30	64,86	68,32	54,36	60,95	65,44
Włocławskie	49,14	50,86	54,51	51,01	56,81	62,91
Wrocławskie	62,39	62,24	66,64	70,02	77,74	78,76
Zamojskie	47,32	50,07	56,86	36,29	47,10	51,54
Zielonogórskie	62,79	55,06	63,80	46,35	50,48	55,26
(3) Średnia arytmetyczna $\bar{x}$	54,40	54,69	58,13	53,00	58,66	63,02
(4) Odchylenia standardowe S	6,40	6,52	7,41	12,45	10,19	10,35
(5) Współczynnik zmienności V	11,77	11,80	12,75	23,48	17,36	16,42

Key:

1. Geographic unit
2. Buildings and equipment
3. Arithmetical mean
4. Standard deviation
5. Coefficient of variability

TABLE II: GEOGRAPHIC CONCENTRATION INDICATORS FOR HEALTH CARE INFRASTRUCTURE

(1) Wyszczególnienie	(2) Działalność			Finanse		
	1975	1980	1983	1975	1980	1983
Polska	**61,16**	**62,30**	**55,65**	**58,79**	**56,94**	**65,22**
Stołeczne warszawskie	66,10	62,54	61,71	74,04	73,74	72,95
Bialskopodlaskie	46,92	54,01	59,75	51,54	39,49	67,64
Białostockie	67,51	64,63	72,86	72,65	64,50	63,63
Bielskie	61,48	66,03	66,37	64,41	52,83	67,41
Bydgoskie	57,84	59,87	58,41	69,80	57,50	77,93
Chełmskie	53,42	58,59	59,23	47,35	49,78	64,40
Ciechanowskie	55,46	54,52	50,83	52,53	60,06	59,91
Częstochowskie	57,87	61,58	61,99	42,83	44,72	52,36
Elbląskie	65,36	66,11	67,49	54,34	48,22	45,56
Gdańskie	66,84	64,08	63,09	61,81	52,27	58,94
Gorzowskie	66,96	66,75	67,94	58,73	59,23	66,64
Jeleniogórskie	59,68	60,45	60,27	56,45	60,20	70,21
Kaliskie	53,96	56,88	55,91	52,33	43,66	45,37
Katowickie	64,97	68,13	68,10	61,06	57,93	74,14
Kieleckie	60,51	60,95	63,65	70,03	66,05	72,59
Konińskie	49,95	53,24	55,53	40,38	38,41	41,55
Koszalińskie	59,43	56,56	57,94	78,02	76,30	83,59
Miejskie krakowskie	68,48	65,30	69,36	64,40	63,87	79,31
Krośnieńskie	56,00	54,83	56,01	49,33	61,65	74,17
Legnickie	60,81	62,50	60,81	73,56	57,77	64,89
Leszczyńskie	46,28	50,96	51,56	36,18	38,63	70,22
Lubelskie	69,81	66,45	68,82	66,52	57,06	59,82
Łomżyńskie	46,69	49,11	52,43	44,56	44,55	65,08
Miejskie łódzkie	74,02	77,86	76,12	75,67	73,94	84,87
Nowosądeckie	60,81	58,18	61,80	73,47	66,80	70,61
Olsztyńskie	66,96	70,78	62,86	60,17	57,73	68,78
Opolskie	57,75	59,45	58,22	60,79	55,88	56,12
Ostrołęckie	50,47	54,93	56,14	30,92	45,18	47,70
Pilskie	53,22	59,33	65,03	38,11	54,27	58,53
Piotrkowskie	54,97	56,69	64,67	47,61	45,69	53,44
Płockie	56,74	63,21	65,68	53,38	62,97	61,43
Poznańskie	70,78	56,92	71,70	68,28	57,51	58,66
Przemyskie	53,50	54,67	61,43	45,39	49,30	59,89
Radomskie	53,94	53,93	59,34	42,15	41,79	61,25
Rzeszowskie	65,11	66,55	68,52	71,72	60,93	60,81
Siedleckie	43,84	45,69	48,48	31,75	35,18	39,06
Sieradzkie	56,29	54,32	59,73	48,03	45,54	61,72
Skierniewickie	54,56	61,20	63,15	35,49	37,10	44,88
Słupskie	66,29	66,86	66,71	60,44	57,88	62,38
Suwalskie	60,63	60,02	68,41	47,71	44,97	69,20
Szczecińskie	69,46	64,65	71,46	62,04	54,95	66,03
Tarnobrzeskie	58,51	59,38	69,18	48,81	49,17	56,44
Tarnowskie	51,49	55,68	62,95	56,85	47,27	56,71
Toruńskie	62,62	57,80	65,08	35,59	43,56	49,38
Wałbrzyskie	58,59	57,77	61,56	61,08	64,05	73,89
Włocławskie	55,21	58,21	61,61	57,77	83,45	80,74
Wrocławskie	75,30	76,13	77,26	69,12	68,64	81,51
Zamojskie	46,90	49,67	59,68	33,11	38,37	46,32
Zielonogórskie	64,07	62,73	66,06	97,02	49,44	52,02
(3) Średnia arytmetyczna $\bar{x}$	59,70	60,26	62,92	56,36	54,53	62,87
(4) Odchylenia standardowe S	7,65	6,48	6,18	13,03	9,75	11,05
(5) Współczynnik zmienności V	12,81	10,76	9,83	23,11	17,89	17,58

Key:
1. Geographic unit
2. Activity
3. Arithmetical mean
4. Standard deviation
5. Coefficient of variability

4) the most difficult situation in Siedlce did not improve, due to insufficient personnel and limited funds in that province.

Health Care Finances in the Provinces

Not much information is published on health care finances in terms of geographical distribution. The usual aggregate indicator is based on available data on health care together with social services, and represents state budget expenditures (investments and current expenditures for general medicine and drugs), plus the value of plant and equipment.

Money expenditures for health care as a part of total budget outlays in Poland are comparable to those of other CEMA countries (4-8 percent), but differ significantly from the levels of such developed countries as Austria, Great Britain, France, FRG, and Italy, where 13-19 percent of total expenditures are allocated for these purposes.[4]

In Poland the share of current expenditures allocated to health care and social services in 1975 was 8.8 percent; the watershed year of 1980 saw a decline in funds for this area to 8.2 percent, but in 1983 more funds were directed to this purpose, i.e. 11.6 percent.[5] For comparison we may add that after the essential changes in state budget current expenditures took place between 1980 and 1983, aside from health care, expenditures for science and education rose (from 8.4 to 12.4 percent), as well as for social insurance (4.7 to 12.5 percent), and expenditures for housing, transport and communications also rose, all at the expense of industry and commerce. Funds for providing health care to the population are reflected in the aggregate indicator in table 2, which shows significant geographic differences, especially for 1975 (coefficient of variability 23.1), which are already smaller five years later. the classification of provinces shows very low allocations for health care in about one third of the provinces in comparison with the optimum national level. They are grouped in central and eastern Poland, and in spite of favorable financial changes, the situation has not improved in Ostroleka, Siedlce, Zamosc, Konin and Torun. The following provinces enjoy the highest level of funding: Lodz, Warsaw, Wroclaw, Katowice, and Walbrzych, or administrative units having medical schools or clinical groups. For the provinces underprivileged with respect to health care infrastructure there will be no increase in medical or pharmaceutical funding, as is pointed out by L. Frackiewicz.[6] After the period of depression, the number of provinces with very good or good financial allocations rose instead of regions of underinvestment. These include: Krosno, Leszno, Wloclawek, Walbrzych and Suwalki. There are also instances of financial regression, e.g. Bialystok, Rzeszow, Poznan and Elblag.

Overall Level of the Health Care Infrastructure in Terms of Geography

The level and changes in health care for 1975 to 1983 are assessed on the basis of an aggregate measurement combining information on the four aspects discussed above. This two-step integration of various types of basic indicators tends to obscure their individual features, and thus results in a loss of information, a reduction in the geographic variability of the new aggregate measurement in relation to its components, in return for an overview of the whole phenomenon. The distribution of the provinces into categories according

to the concentration of the aggregate measurement approaches normal, with a slight asymetry to the right. The largest group of provinces (42 percent) is characterized by a medium level of infrastructure; the number of severely neglected units is quickly reduced during the period under consideration (from 11 to 1), but at the same time no new regions with a high standard of health care appear. In terms of advancement in health care for 1975 the highest indicator is achieved by Lodz, followed by Wroclaw, Bialystok, Gorzow and Warsaw. After these, among the top ten are: Poznan, Lublin, Cracow, Gdansk and Slupsk. The worst health care situation can be seen in the northeastern part of the country, represented in particular by Siedlce, Ciechanow, Zamosc, Ostroleka, Konin, Tarnow, Lomza and Skierniewice.

In spite of the serious economic conditions of 1980, the standard of health care improved in the majority of these provinces, especially in Ciechanow, Ostroleka, and Skierniewice, as is shown by the differences in the aggregate measurement in Table 3. As a result of this, the least advanced provinces moved into a higher class, with the exception of Siedlce, Zamosc and Konin, which occupy the last places in infrastructure development. Greater stabilization appears in the order of the best provinces, but here too Slupsk, Olsztyn and Jelenia Gora come in ahead of Warsaw and Poznan.

In 1983 we can observe an increase in the average value of the aggregate measurement (from 55.8 in 1975 to 60.8 in 1983), indicating an improvement in the general health care situation. On the other hand, interregional differentiation in the level of infrastructure as expressed by the coefficient of variability in Table 3 increased. This phenomenon is atypical of health care aspects analyzed so far with the exception of the material base.

At the top of the list of provinces ordered according to their level of health care we see the same provinces from 1975 on: Wroclaw, Lodz, Gorzow and Bialystok. After them at present are: Katowice, Suwalki, Walbrzych, Cracow and Szczecin. The greatest distance from the optimum level of health care is shown by: Siedlce, Skierniewice, Konin, Piotrkow and Kalisz.

It should be noted that K. Podoski[7], observing the situation with regard to health care and social service in regional terms from 1975 to 1980, arrives at a similar conclusion regarding the geographical structure of this phenomenon. In spite of the fact that the above cited work uses a different set of basic indicators, comparison of the ordering of provinces shows that in extreme groups 70 percent of data agree with results of this analysis.

The map (on the cover) shows the geographic differentiation of the health care infrastructure for 1983. Well supplied and efficient health care service is found in the western, northern and north-eastern border areas, and also in the south (Walbrzych, Katowice, Cracow). From the western part of the country (Zielona Gora) through the center (Piotrkow, SKierniewice) to the east (Ostroleka, Lomza, Siedlce) there stretches a region which is underdeveloped from the point of view of health care. Siedlce has the lowest indicator in Poland. The rest of the country shows an average level of health care.

A similar geographic pattern can be observed for the distribution of medical personnel and health service activity.

TABLE III: GEOGRAPHIC CONCENTRATION INDICATORS FOR HEALTH CARE INFRASTRUCTURE

(1) Wyszczególnienie	(2) Ogółem		
	1975	1980	1983
Polska	**57,31**	**58,48**	**58,69**
Stołeczne warszawskie	66,50	62,20	64,24
Bialskopodlaskie	49,50	53,40	61,97
Białostockie	68,06	68,24	69,58
Bielskie	55,40	55,84	60,16
Bydgoskie	56,55	56,35	59,22
Chełmskie	51,38	55,90	60,24
Ciechanowskie	42,84	52,41	54,96
Częstochowskie	53,76	56,34	58,44
Elbląskie	56,09	57,24	57,92
Gdańskie	62,19	59,38	58,85
Gorzowskie	67,48	70,76	70,28
Jeleniogórskie	61,17	62,61	64,22
Kaliskie	50,12	52,10	53,04
Katowickie	60,78	60,46	67,25
Kieleckie	59,11	59,71	63,46
Konińskie	45,41	48,60	51,19
Koszalińskie	58,88	60,14	63,48
Miejskie krakowskie	62,64	60,78	65,97
Krośnieńskie	52,08	55,00	61,34
Legnickie	57,46	57,68	61,25
Leszczyńskie	48,12	51,22	55,20
Lubelskie	62,79	62,15	64,46
Łomżyńskie	47,46	52,01	57,70
Miejskie łódzkie	72,42	73,35	73,83
Nowosądeckie	55,17	56,38	60,50
Olsztyńskie	60,87	63,19	63,89
Opolskie	58,31	59,32	60,04
Ostrołęckie	44,97	52,02	53,70
Pilskie	50,52	55,13	59,43
Piotrkowskie	49,93	52,18	56,82
Płockie	52,38	57,69	61,43
Poznańskie	63,32	62,03	62,07
Przemyskie	53,60	54,88	62,46
Radomskie	50,00	51,53	57,07
Rzeszowskie	58,79	59,70	62,72
Siedleckie	41,54	44,76	47,30
Sieradzkie	53,78	57,65	60,05
Skierniewickie	47,83	55,70	50,77
Słupskie	61,97	63,99	64,83
Suwalskie	56,26	59,01	66,35
Szczecińskie	59,81	60,49	65,67
Tarnobrzeskie	53,05	54,40	60,47
Tarnowskie	47,51	50,65	55,56
Toruńskie	50,17	51,37	57,39
Wałbrzyskie	59,19	61,59	66,09
Włocławskie	52,66	58,37	61,56
Wrocławskie	69,07	70,49	74,19
Zamojskie	43,71	48,05	55,76
Zielonogórskie	59,95	56,41	53,87
(3) Średnia arytmetyczna $\bar{x}$	55,75	57,77	60,78
(4) Odchylenia standardowe S	4,01	3,11	5,50
(5) Współczynnik zmienności V	7,19	5,40	9,05

Key:

1. Geographic unit
2. Total
3. Arithmetical mean
4. Standard deviation
5. Coefficient of variability

Over the 8-year period changes took place in the health care situation. Table 3 shows the magnitude and direction of these changes in the form of differences in the aggregate indicator. Except for three cases, we can observe progress in the area of health care, especially in the provinces of Biala Podlaska, Ciechanow, Lomza and Zamosc, i.e. in areas neglected in this type of services.

The aggregate map of changes in the general indicator of concentration gives us an idea of the distribution of these changes. Thus we can see that, aside from Siedlce, all the units which at the beginning of the period under consideration were classified in the lowest category moved into the category of moderate development, and Lomza and Biala Podlaska even achieved average level.

There was less regrouping in the regions of average advancement, where 8 out of 21 provinces remained at the same level, and Wroclaw alone, with its high level of health care, was able to reach virtually the maximum standard in Poland.

We may therefore consider that the simple statistical and cartographical method used in this study enables us to get an idea of the geographic and temporal changes for the phenomenon under discussion, both as a whole and in its component parts.

FOOTNOTES

1. Cz. Surowik, "Warunki realizacji prawa do ochrony zdrowia w Polsce", [Requirements for Implementing the Right to Health Care in Poland] doctoral dissertation no 27, Gdansk University, Gdańsk, 1976, p 47.

2. A similar approach was proposed by the Research Group of the Institute of Political Science, see "Infrastructura Spoleczna w Polsce--stan i perspektywy" [The Social Infrastructure in Poland--Status and Future Prospects], a collective work edited by K. Podoski, Warsaw, 1978.

3. In multi-feature analysis many taxonomical methods are used, as well as simpler ones, such as the method of ranks, points and the above mentioned method.

4. Rocznik Statystyczny Finansow 1982, GUS, Warsaw 1983, p 306.

5. Rocznik Statystyczny 1984, GUS, Warsaw 1984, p 89.

6. L. Frackiewicz, Polityka ochrony zdrowia [Health Care Policy], Warsaw 1983, pp 215, 221.

7. K. Podoski, Dystanse i rangi wojewodztw w zakresis ochrony zdrowia i pomocy spolecznej [Distances and Ranks of the Provinces as Regards Health Care and Social Assistance], Wiadomosci Statystyczne 1983, No 12.

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NORTHERN TRANSVAAL GIRL DIES OF CONGO FEVER

Johannesburg THE CITIZEN in English 28 Aug 85 p 11

[Text]

THE deadly Congo Fever has claimed its first victim in the Northern Transvaal when a teenager died this week.

A spokesman for the George Masebe Hospital in Potgietersrus yesterday confirmed that a 17-year old Black girl died there of Congo Fever.

The girl was admitted to the hospital on Saturday afternoon, and, shortly before her death on Sunday, doctors at the hospital suspected that she might be suffering from Congo Fever.

A report containing her symptoms was received on Monday, the spokesman said, and was sent to the National Institute of Virology in Johannesburg.

On Tuesday the institute confirmed that the girl, whose name was not released, had suffered from Congo Fever.

The hospital spokesman said that it was the first confirmed Congo Fever case in the Northern Transvaal.

"Everything at the hospital is under control and the members of the hospital staff who had been in contact with the girl had all been checked for symptoms," he said.

He added that all the people, including friends and family of the dead girl, had been closely monitored for symptoms of the disease, but had all been negative.

This was the fourth confirmed Congo Fever case in South Africa this year, and during the same period last year, five cases of the disease were confirmed.

CSO: 5400/185

SOUTH AFRICA

BRIEFS

AIDS BLOOD DONORS--Prosecution of people knowingly donating blood contaminated with the AIDS virus is possible. Western Cape Attorney General Neil Rossouw said yesterday that if there was evidence someone had deliberately donated AIDS-virus contaminated blood, and this led to a recipient developing the disease and dying, the donor could be prosecuted for murder. Reports from overseas say that some people were reacting to the news that they had become infected with the virus, or had developed AIDS, by trying to infect as many others as possible. Similar unconfirmed reports have circulated in Cape Town but there is no evidence that anyone has deliberately done this in South Africa. Dr Pat Coghlan, medical director of the Western Province Blood Transfusion Service, said donors were asked to sign a declaration that they were unaware of any possible infection with the virus. He said all blood donations were to be tested for AIDS-virus antibodies from Sunday.--SAPA. [Text] [Johannesburg BUSINESS DAY in English 29 Aug 85 p 5]

CSO: 5400/191

LEPROSY RATE SEEMS TO DROP, SISAKET OUTBREAK NOTED

Apparent Drop Noted

Bangkok NAEO NA in Thai 16 Jul 85 pp 1, 10

[Article]

[Excerpt] There are reports that in Sisaket Province, more than 3,000 people in the single subdistrict of Khon Khawao in Muang District have leprosy. The reports state that there are lepers in every village and that half of the people have leprosy, as NAEO NA has reported.

Dr Thira Ramsut, the deputy director-general of the Communicable Disease Control Department, talked with reporters on 15 July about the number of people who have leprosy. He said that the reports that large numbers of people in Sisaket Province have leprosy are the result of a misunderstanding. Actually, a large number of lepers have been living in one village for a long time. In the past, the treatment of lepers was not very progressive. Only a few American missionaries looked after them. Because of this, they were kept separate from others. But now, the method of treating this disease has made great progress and so the old method has been abandoned.

The deputy director-general of the Communicable Disease Control Department said that at present, there are only about 10 villages that are used to treat lepers. Most of these are in the north and northeast. Most of the lepers are elderly people. Most of them have been cured but are now deformed. Each of these villages has approximately 50-100 lepers. Each of these people has a family and works for a living.

As for the number of lepers who have registered with officials, Dr Wira said that 41,199 have registered. Of these, 1,914, or 4 percent, are children; 53 percent are in the communicable stage; bacilli have been detected in 9 percent; 33 percent are people who have had the disease for a long time; and 12 percent are new patients. Each year, another 2,000-3,000 people come down with the disease. These figures show that the number of lepers in Thailand has declined. The incidence of leprosy has declined from 5 per 1,000 to only 0.9 per 1,000. The World Health Organization has praised us for the results achieved in controlling this disease.

Dr Thira spoke about the progress made in treating leprosy. He said that at present, there are three drugs instead of just one. Thus, the length of treatment during the communicable stage has been reduced from 15 years to only 2 years, and the non-communicable stage has been reduced from 5 years to only 6 months. Other countries are doing studies on a vaccine to prevent and treat this disease. If the vaccine proves effective, we will use it in Thailand.

Dr Chaichana Suwannawet, a public health official in Sisaket Province, told NAEO NA that there are 1,570 lepers in the 10 districts in Sisaket Province. Two days ago, he went to Khon Kawao Subdistrict to learn the facts and found that there are 59 lepers in that subdistrict. Among these people, the disease is in the inactive stage. They just have deformations from having had this disease. Leprosy Division officials stationed in the province have given them medical treatment. They give them drugs periodically. For those who cannot come and get the drugs, officials are sent to treat them at home.

Dr Chaichana said that the province does not have a shortage of drugs. The villagers may have complained about this because of a misunderstanding. In treating leprosy, the patients have to take drugs over a period of time. When the symptoms begin to disappear, the dosages can be reduced. When a person has been completely cured, it is no longer necessary to take any drugs. If excessive amounts of drugs are taken, they can damage the blood cells and bone marrow.

As for dispensing drugs, the provincial public health officer said that besides obtaining drugs from provincial officials, the people can obtain medicine from the public health clinics that are within a radius of 1 km. As for establishing leprosy treatment settlements, Sisaket Province is not a target province since there are few serious cases of leprosy here. But if the patients become unable to care for themselves, which could happen if they are shunned by their families and neighbors, they can be sent to a nearby settlement such as the one in Amnat Charoen District in Ubon Ratchathani Province or to the Noen Sombun Medical Center in Khon Kaen Province. However, during the past 1-2 years, no one has had to be sent to a settlement.

Mr Marut Bunnak, the minister of public health, said that he has ordered the provincial officials and Communicable Disease Control Department to investigate this matter. If this is true, urgent action must be taken to solve the problem. We are very concerned about this and do not want this disease to spread. As for the proposal to establish a leprosy treatment center, the minister said that that is not necessary. If there are large numbers of lepers, they can be transferred to nearby centers such as the Noen Sombun Center in Khon Kaen Province, which is a large center. As for people's complaint that provincial officials are not giving attention to treating this disease, Mr Marut said that he will check to see if anyone is at fault.

Sisaket Outbreak

Bangkok NAEO NA in Thai 15 Jul 85 pp 1, 10

[Article]

[Excerpt] A reporter in Sisaket Province has reported that at least 3,000 of the 6,000 people in the 9 villages in Khon Khawao Subdistrict, Muang District, have leprosy. This subdistrict is located 13 km from the provincial seat. To get there, you take the Sisaket-Ubon Ratchathani Highway to km 9, take a left turn and go approximately 3 km. The report stated that provincial officials are giving little attention to this matter. Mr Phao Wannathawi, age 48, a leper who lives at 52 Village 1 in Khon Khawao Subdistrict, said that there have been lepers in the village ever since he was a child. Fifteen years ago, foreigners came and dispensed drugs for almost 2 years but then left. Since then, no one has paid any atteniton to this. District officials have occasionally dispensed some drugs. Those who are sick have to go to the district seat to get the medicine. They are given 20 tablets each time, which is enough for 1 month. When they go to get more, they are sometimes refused. Those who dispense the drugs claim that they are out of medicine and that they will have to inform provincial officials to have them procure more medicine.

"Without the medicine, the itch is terrible," said Mrs Nu Homhumdaeo, age 61, to NAEO NA."We want the government to establish a treatment center and take steps to prevent lepers from transmitting this disease to others," said Mr Seng Phimsaman, another leper.

NAEO NA tried to obtain information from public health officials, but they would not cooperate since they did not want any reports published about there being large numbers of lepers in their area of responsibility.

Dr Winit Atsawasanao, the director-general of the Communicable Disease Control Department, talked with NAEO NA on 14 July about treating lepers. He said that actually, leprosy is not a dangerous disease. It can be treated. But people still think that it is difficult to cure people with this disease. However, the effects of this disease, such as deformities and destruction of the fingers and hands, cannot be treated. To treat the disease, people are given medicine to take, and they are monitored. In most cases, people are allowed to stay at home. In cases in which the person does not have any relatives or cannot work or in which the person is very poor, the person is placed in a settlement operated by officials. There are about 12 such settlements nationwide.

Dr Winit said that the problem frequently encountered by the department in treating lepers is that the patients do not understand the method of treatment. That is, they do not understand that they must take the medication regularly. The department does not have problems as far as funds or drugs are concerned. Surveys are made frequently to

determine the number of patients, and drugs in sufficient quantities are readied.

As for the matter of people in Khon Khawao Subdistrict, Muang District, Sisaket Province, complaining to reporters that officials give little attention to treating the 3,000 people who have leprosy, which has been a problem there for 15 years, the director-general of the Communicable Disease Control Department said that he has not received a report about this from officials in Sisaket Province. But units concerned with this are stationed in Sisaket Province and in nearby provinces such as Ubon Ratchathani and Surin provinces. Also, patients can go to the clinics or public health centers for treatment.

Leprosy Vaccine Tested

Bangkok MATICHON in Thai 17 Jul 85 p 2

[Article: " Four Thousand People in Bangkok Have Leprosy"]

[Text] Reports state that 42,000 Thais have leprosy. Sixteen provinces, most of which are in the northeast, have a problem with this disease. The number of lepers in Bangkok is increasing.

Dr Thira Ramsut, the deputy director-general of the Communicable Disease Control Department, told MATICHON that at present, there are 41,199 registered lepers nationwide. Of these, 53 percent are in the communicable stage. Bacilli have been detected in only 9 percent of the patients. Four percent are children. However, officials have succeeded in controlling this disease to the point where the incidence of leprosy has declined to only 0.9 per 1,000 people. The World Health Organization has stated that a country with a rate above 1 per 1,000 people has a problem with leprosy. Our rate is below that.

Dr Thira said that there are 16 provinces, mostly in the northeast, that have a rate above that set by the World Health Organization. These include Ubon Ratchathani, Surin, Mahasarakham, Sisaket, Roi Et, Khon Kaen, Yasothon, Chaiyaphum, Buriram, Nakhon Ratchasima, Kalasin, Uthai Thani, Saraburi, Chonburi, Phichit and Phuket. During the past 4-5 years, the number of lepers in Bangkok Metropolitan has increased. This is because people have migrated here from the rural areas. The latest figures show that there are 4,000 lepers in Bangkok Metropolitan. Previously, there were only 1,000.

The deputy director-general of the Communicable Disease Control Department said that the ministry, in cooperation with the faculties of medicine at the various universities, has established a National Advisory Subcommittee on Leprosy. It is responsible for developing technology to help prevent, control and treat leprosy.

"We have discovered a vaccine to treat leprosy. In tests conducted on animals, good results have been achieved. We are now testing the vaccine on a small group of patients and others exposed to the disease," said Dr Thira. This vaccine is composed of BCG vaccine and live M. leprae bacilli. There is great hope that this new vaccine will cure people suffering from leprosy.

11943
CSO: 5400/4417

PAPERS DISCUSS TB INCIDENCE, RESISTANCE TO DRUGS

Cure Rate Noted

Bangkok BAN MUANG in Thai 14 Jun 85 pp 1, 3, 14, 16

[Article: "Tuberculosis Is Still a Killer"]

[Text] Doctors have stated that pulmonary TB is still a "quiet killer." It poses a great threat to people who have not been fully cured of the disease. Because if people do not take their medication regularly, the disease can build up a resistance to the medicine. Thus, a drug-resistant form of TB can be spread to other people. The incidence of TB has increased every year.

Dr Chaiyawet Nutprayun, the director of the Pulmonary Disease Unit, Faculty of Medicine, Chulalongkorn University, and the secretary of the Executive Committee of the TB Control Assocation of Thailand, which is under the patronage of the king, said that even though the rate of incidence and death from pulmonary TB has declined, the rate of infection has not declined. Nationwide, 40.6 percent of the population has been infected. There are 140,000 people who are in the carrier stage. Each carrier can spread the disease to approximately 10 people a year. Today, there are approximately 600,000 people who need treatment for pulmonary TB. The World Health Organization has stipulated that the rate of infection among people below the age of 14 must not exceed 2 percent. Otherwise, it must be considered to be a public health problem. But in Thailand, the rate for this group is 15 percent. Thus, this is a public health problem that cannot be ignored. Even though treatment is now much more advanced and 98 percent of those who contract TB can be fully cured, studies conducted by the TB Control Association have shown that for every 100 people treated, only 50 are fully cured. The others are not cured because they fail to take all of their medicine regularly as prescribed by their doctors. Some take only one medicine even though the several medicines used to treat this disease must be taken together to be effective. As a result, the disease becomes resistant to the medicine, there is little or no chance of curing the person and the cost of treating the person increases greatly.

Dr Chaiyawet said that the studies conducted by the association have shown that 50 percent of the patients who have had to return for treatment have a drug-resistant strain of the disease. This strain can be transmitted to people nearby, which can lead to outbreaks of drug-resistant TB and which can infect patients who have not yet received treatment. There are strains that are resistant to just one of the drugs and to all three of the drugs used to treat TB. This will pose a problem for TB treatment in the future.

Dr Chaiyawet said that if patients took the medicine regularly as prescribed by their doctor, there would not be any problem. But patients sometimes think that this disease is no longer a serious disease and so they are lax about receiving treatment. Worldwide, about 3 million people a year die from TB, and there are approximately 4-5 million new cases each year. There are about 10 million people in the carrier stage. Most of these live in the developing countries. The disease is caused by microorganisms, which reside in the body. The disease is spread most frequently by the lungs. Other organs rarely have a chance to spread the disease. This is because the pulmonary TB sores are like cavities that contain large numbers of TB organisms. When the person coughs, the sputum that comes out is like a fine mist that remains suspended in the air. Thus, the organisms can be inhaled by people nearby. They then become infected.

From studies conducted both here and abroad, it has been found that 65 percent of the people who are exposed to TB will become infected and that 5 percent of these will become ill with pulmonary TB within 2 years. The rest will be at risk for the rest of their lives, if they have low resistance, for example, if they have AIDS or diabetes. Thus, people should have a chest X-ray taken once a year in order to protect themselves from this disease.

Furthemore, on the 50th anniversay of the founding of the TB Control Association on 8 July 1985, in cooperation with the Ministry of Public Health and Bangkok Metropolitan, the association will hold the second national-level seminar on TB in the Wiphawadi Ballroom of the Hyatt Central Plaza Hotel on 8 and 9 July. Princess Kalayaniwattana will serve as chairman. Besides this, an exhibition will be held at the Central Plaza Trade Center during the period 8-14 July 1985. People will be examined and X-rayed free of charge.

Resistance to Drugs

Bangkok BAN MUANG in Thai 3 Jul 85 pp 1, 14

[Article]

[Excerpt] Dr Songkhram Sapcharoen discussed the results of the TB study made by the TB Control Association. A study was done on the effectiveness of the drugs used with TB patients who have never received treatment

before. It was found that in 30 percent of the cases, the TB organisms were resistant to one of the three drugs used to treat TB. This is an increase of 5 percent in the past 10 years. In particular, it was found that TB organisms were more resistant to isoniazid, which is a very potent and inexpensive drug. This has made it necessary to switch to a more expensive drug. It was also found that TB organisms have become more resistant to all three drugs, which poses a problem for the Ministry of Public Health. The reason why drug-resistant strains have been found in more people who have never received treatment is that these people have been infected by people with this strain. These people failed to take their medicine regularly. Normally, it takes 18 months to cure a person with TB. But in many cases, when their symptoms disappear, people think that they are cured and stop taking their medicine. Because of this, there are now drug-resistant strains.

Dr Songkhram said that the latest survey shows that there are approximately 700,000 people with TB nationwide. The death rate from TB is 11 per 100,000 people. The following are symptoms of TB: 1. a chronic cough of unknown cause; 2. chest pains; and 3. lack of appetite and loss of weight. If a person has such symptoms, he should see a doctor as quickly as possible. If a person receives treatment soon after the onset of the disease, he can be cured completely in only 9 months.

Cure Rate Said to Be Dropping

Bangkok THAI RAT in Thai 14 Jun 85 pp 1, 7

[Article: The Incidence of TB, the Silent Killer, Is Increasing Every Year"]

[Text] Doctors have stated that TB is still a silent killer. The cure rate is only 50 percent since patients fail to take their medicine as prescribed by their doctor. Thus, there are drug-resistant strain. Doctors are afraid that in the future, it will be impossible to cure people. At present, 40 percent of the people have been infected by TB. This is increasing every year. People should have a physical examination every year.

Dr Chaiyawet Nutprayun, the head of the Pulmonary Disease Unit, Faculty of Medicine, Chulalongkorn University, and the secretary of the Executive Committee of the TB Control Association of Thailand, which is under the patronage of the king, said that TB is still a "silent killer." Even though the rate of incidence and death from TB has declined, the rate of infection has increased. Nationwide, 40.6 percent of the population has been infected. There are 140,000 people who are in the carrier stage. Each carrier can spread the disease to approximately 10 other people a year. Today, there are approximately 600,000 people who need treatment. The World Health Organization has stipulated that the rate of infection among people below the age of 14 must not exceed 2 percent. Otherwise, it must be considered to be a public health problem. But in Thailand, the rate is 15 percent. Thus, this is a public health problem that cannot be ignored.

Dr Chaiyawet said that even though treatment is now much more advanced and 98 percent of those who contract TB can be fully cured, studies conducted by the TB Control Center have shown that for every 100 people treated, only 50 are fully cured. The others are not cured because they fail to take all their medicine regularly as prescribed by their doctors. As a result, the disease becomes resistant to the medicine, there is little or no chance of curing the person and the cost of treating the person increases greatly. The studies conducted by the TB Control Association show that 50 percent of the patients who return for treatment have a drug-resistant strain of the disease. This strain can be transmitted to people nearby, which can lead to the outbreak of drug-resistant TB and which can infect patients who have never received treatment before. Drug-resistant strains of TB are becoming more prevalent. This will pose a problem for treatment in the future. Actually, if people took their medicine as prescribed by their doctors, this would not be a problem. But patients sometimes think that the disease is no longer a serious disease and so they are lax about receiving treatment. Some people refuse to admit that they have TB. Dr Chaiyawet said that worldwide, approximately 3 million people a year die from TB, and there are approximately 4-5 million new cases each year. There are 10 million people in the carrier stage. Most of these live in the developing countries. The disease is caused by microorganisms, which reside in the body. The disease is spread most frequently by the lungs. This is because the pulmonary TB sores are like cavities that contain large numbers of TB organisms. When the person coughs, the sputum that comes out is like a fine mist that remains suspended in the air, which can be inhaled by people nearby. Sixty-five percent of the people exposed will become infected. When the organisms enter the lungs, they can cause an infection. If the person has low resistance or if he has a disease such as AIDS or diabetes, he can become infected easily. Initially, the disease does not produce any symptoms. The disease gradually destroys the body before symptoms appear. Symptoms include coughing, sputum containing blood and many others. The disease can be transmitted to others unknowningly. Thus, people should have a chest X-ray taken every year. This disease occurs most frequently among people who live in crowded areas. On the 50th anniversary of the founding of the TB Control Association on 8 July, a seminar will be held, and there will be an exhibition at the Central Plaza Trade Center during the period 8-14 July. Interested people are invited to attend and to receive a physical examination.

11943
CSO: 5400/4417

BRIEFS

ITALIAN HEALTH SERVICES AID--Uganda and Italy have signed an agreement for technical cooperation in the field of health. The agreement was signed in Entebbe today by the minister of health, Mr Obonyo, and the Italian charge daffaires, Mr (Tazaklini Angelo). Under the agreement the Italian Government will render assistance to the Uganda Government for the improvement of health services. Through its voluntary agency, the international college for health cooperation in developing countries, Italy will implement a health cooperation program in West Nile. Under the agreement, the Italian Government will provide and finance Italian technical personnel, transport, hospital equipment, essential drugs and a contingency fund. /Excerpts/ /Kampala Domestic Service in English 1400 GMT 22 Aug 85 EA/

IMMUNIZATION PROGRAM STARTED--An immunization program for children in Kampala has been launched. It is sponsored by the Ministry of Health, Uganda National Expanded Program of Immunization, the UN Children's Fund in Kampala and Kampala City Council. Under the program children will be immunized against some common diseases like measles, tuberculosis, tetanus, whooping cough, polio, and diptheria which kill thousands of children in the country every year. [Excerpt] [Kampala Domestic Service in English 1700 GMT 27 Aug 85 EA]

CSO: 5400/182

CATTLE DYING FOR LACK OF VETERINARY SERVICES

Luanda JORNAL DE ANGOLA in Portuguese 23 Jul 85 p 3

[Text] Namibe (from our correspondent)--The livestock sector in Namibe is confronted with a high mortality rate in the herd as a result of the lack of veterinary services, Manuel Pacheco, provincial director of DINAPROPE(National Cattle Products Distributing Company), has told this newspaper.

The company director said that the livestock, particularly cattle, have been suffering from various ailments, particularly pneumonia, which has been fatal, for want of preventive vaccination.

According to Manuel Pacheco, although the sector responsible for promoting vaccination campaigns has received countless requests, it claims it does not have enough medicine to respond to the situation, since the shortage of supplies has worsened in the last 2 years.

The mortality, as yet uncalculated, has spread to the areas in the interior of Namibe Province, specifically Bibala, Camacuio and Virei, hampering the progress of the rural marketing process.

With regard to marketing, Pacheco noted with displeasure the persistent and generalized cattle theft, as well as the loss of some heads during the marketing process. He mentioned another problem: the difficulty of transporting small animals, such as goats and pigs, because of their poor resistance and the shortage of feed during the transfer over hundreds of kilometers on extremely poor access roads.

According to Pacheco, the shortage of marketable goods in the rural zones has been one of the obstacles to successful barter with the peasants, who need such products as blankets, dyed cloth, "samakaka," radios, batteries, bicycles and alcoholic beverages. During the second quarter of this year, DINAPROPE was not supplied with such goods because the Domestic Trade Ministry failed to distribute them.

Regarding sales of meat to the public, he noted that in the last 6 months they totaled 168,169 kilograms of beef, 22,735 kilograms of pork and 14,054 kilograms of goat. DINAPROPE has a canning complex in Namibe which is equipped to handle 140 tons.

6362
CSO: 5400/181

BRIEFS

FOOT-AND-MOUTH VACCINE--The office of the Ministry of Agriculture in Sao Paulo will try to expand the distribution of oleose vaccine to combat foot-and-mouth disease. This information was given yesterday by Jorge Assumpcao Schmidt, the ministry's new representative, during his inauguration ceremony; he said that the vaccine, produced by the ministry's regional animal-support laboratory in Campinas, is now almost totally restricted to the combat of foci of the disease in endemic areas. According to Schmidt, it is necessary, in the official area and in private initiative, to broaden "the public's awareness so that the technology used in producing the vaccine may be duly absorbed and marketed, with sale to the country's producers." The ministry's new representative in Sao Paulo said that one of the priorities of his administration will be the inspection ad control of products of animal origin, such as meat, milk, fish and derivatives, "trying to guarantee the consumers of both the domestic and foreign markets good products, just as we shall do with products of vegetable origin." Jorge Schmidt was chosen as a representative of the Ministry of Agriculture after a dispute among several candidates for that position for which he had declared himself a substitute candidate. He is an agaronomist, lawyer and former mayor of Itapeva and has been working in the ministry for 35 years. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 23 Jul 85 p 41] 8568

CSO: 5400/2081

NEW VACCINES FOR INFECTIOUS DISEASES OF ANIMALS

Prague RUDE PRAVO in Czech 1 Apr 85 p 5

[Article by Jan Svoboda: "The Future Belongs to Bioproducts"]

[Text] The Bioveta in Ivanovice in Hana is one of our most important manufacturers of veterinary vaccines. It specializes in particular in products which provide long-term or permanent resistance against the most serious diseases in animals. Furthermore, it tries to affect with its products several causes of individual diseases at the same time and to achieve really effective prevention of therapy.

Bioveta in Ivanovice met its plan last year ahead of schedule and moreover, it not only fulfilled the pledge of 3-day output, but it delivered 9-day production above the plan. That was not an easy task because the enterprise is conducting its departmental research program for the development of biproducts for prompt practical application. It is the only economic organization in the jurisdiction of the Ministry of Agriculture and Food that has fulfilled its research tasks.

"For that reason we must be diligent in our efforts to start the production of new drugs," says Eng Radomir Hromadka, doctor of veterinary medicine and director of the enterprise. According to him, its research department made 14 new products available for production and earned the enterprise more than Kcs 4 million. Innovated vaccines against infectious diarrhea alone represent a contribution of about Kcs 2 million. The fulfillment and overfulfillment of the plan go hand in hand with a rapid rate of innovations.

Among the new products developed in cooperation with the Research Institute for Veterinary Medicine in Brno is a kit for the diagnosis of leukosis in cattle. The kit detects the disease soon after infection because it is at least 20 percent more sensitive than the previously used diagnostic methods. It was tested in veterinary schools in Brno and Kosice, in central state veterinary institutes in Prague and Bratislava and other institutions, which confirmed the advantages of the kit and its importance for the liquidation of leukosis in our country.

It is the first product of its kind in the CEMA countries based on the enzymatic immunological analytical diagnosis of the above-mentioned cattle disease. Samples of the product were sent to the USSR, GDR and FRG. In the third quarter of 1984 Ivanovice produced 62 kits, in the last quarter already more than 500 kits. Their production is gaining momentum and as many as 2,000 are planned for this year.

Human medicine, particularly pediatrics, is interested in new products; pilot production of a diagnostic kit has recently been launched. It is a kit facilitating the diagnosis of infections caused by rotavirus which plays a major part in the development of diarrhea in the newborn. Furthermore, diagnostic kits for other serious viral diseases were developed.

It is a task of considerable importance to prevent infectious diseases of the digestive tract in newborn calves by a vaccine affecting the rotavirus, coronavirus and B. coli. This particular vaccine was developed in close cooperation with the Research Institute for Veterinary Medicine in Brno and underwent very intensive clinical tests in the Bioveta; its pilot production was launched without delay. Its extent was motivated by material incentives to employees in the vaccine manufacturing center and in other appropriate sectors. For every 1 liter of the vaccine the management of the enterprise awarded the work team an additional bonus of Kcs 10. For that reason 220,000 doses were delivered in 1984. Veterinary practice makes very urgent demands and Bioveta in Ivanovice in Hana will meet them this year with the production of 900,000 doses of the new vaccine.

Innovated vaccines against infectious diseases of the respiratory tract in hogs are now in the stage of clinical testing. A vaccine against infectious pneumonia in hogs was produced last year in a pilot plant. Experts focusing on this task are closely cooperating with the manufacturer, which made it possible to prevent the infection from spreading in large farms.

The pilot plant of the Bioveta in Ivanovice entered 1985 with several new products. Moreover, it continues to manufacture microbiotic substances in premixed and tablet forms for calves, pigs and poultry. These substances improve digestion, keep intestinal microflora in balance and produce a therapeutic effect. The purpose of the development of microbiotics is their improvement so that they may be properly utilized in fodder mixes. Biological materials are also appreciated for environmental protection programs.

The enterprises cooperation with R&D institutes, especially with the Research Institute for Veterinary Medicine in Brno, was recently very much enhanced. The teams of task-solvers are interrelated, which brings the development of new products in Bioveta in harmony with the achievements of top veterinary research. On the other hand, research tasks may be adapted from the beginning to practical demands of the production, which will be reflected in innovations of assortments of products in the next 5-year plan.

9004
CSO: 5400/3004

BRIEFS

SPREAD OF VARROASIS IN CSR--Varroasis, a disease affecting bees, is caused by the Varroa jacobsoni mite. Thus far it has been confirmed in 29 districts of the 6 krajs in the CSR. It is unknown to beekeepers in 22 districts and in West Bohemia. Experts of the Czech Veterinary Administration banned transfers of beehives between the krajs in the CSR starting this year. [Text] [Prague RUDE PRAVO in Czech 5 Mar 85 p 2] 9004

CSO: 5400/3004

MAPUTO VACCINATION CAMPAIGN AGAINST RABIES EXPANDED

Maputo NOTICIAS in Portuguese 8 Jul 85 p 2

[Text] A vaccination campaign against rabies will shortly be carried out on a house-to-house basis in the city of Maputo. This campaign, during which all Canidae and Felinae--dogs and cats--will be vaccinated, will cover Districts 2 and 3 in its first phase, since the campaign began last May in District 1, where more than 1200 animals were vaccinated. A source at the Maputo Provincial Agriculture Office said that chickens will also be vaccinated against Newcastle fever in the course of the campaign.

In this connection, a vast publicity effort was launched last Thursday in the political-administrative bodies and among the people in the districts involved, under the direction of the Veterinary Departments of the Maputo Provincial Agriculture Office.

A source at that body told our reporters that the brigades which will carry out this campaign will focus their efforts on Urban Districts 2 and 3, since the vaccination campaign began last May in District 1.

This same source added that, throughout this phase, which will last 30 days, chickens will also be vaccinated against Newcastle fever, and a census will be taken of all domestic animals in order to establish control from the veterinary point of view.

The campaign will be carried out by four vaccination brigades including 30 students from the Faculty of Veterinary Medicine at Eduardo Mondlane University. They will work directly with the political and administrative structures in the neighborhoods covered.

Satisfactory Results

In a talk with one of the individuals involved in the preparatory work, our reporters learned that the vaccinations against rabies, carried out on a house-to-house basis for the first time, yielded satisfactory results in Urban District 1. It is hoped that the same will be the case in the other districts covered by this phase.

Moreover, a source at the Medical Examination and Prophylaxis Center in the city told NOTICIAS that in the early months of this year, some rabid animals

were taken into custody in the neighborhoods of Sommerschield and Polana-Cimento, as a result of which the veterinary bodies undertook a "lightning campaign" in these zones.

The same source said that the number of dog or cat bites or scratches which brought patients to that public health establishment in the first 6 months of this year is estimated at five.

By way of explanation, he said that the development of these cases "was due mainly to inadequate control of rabid animals."

To deal with the situation, the Provincial Agriculture Office, working in coordination with the Medical Examination and Prophylaxis Center, plans to study the possibility of passing a law prohibiting neglected or other animals from running loose, particularly in public places.

Plans for August and September

In the months of August and September, the antirabies vaccination campaign will be extended to the remaining urban districts in the city of Maputo, in areas which will be defined in advance and which were not covered in this initial phase.

"In these districts, the campaign will not proceed house to house, because we do not have the necessary capacity, either in material or technical terms, to do so," the source in the Veterinary Departments of the Provincial Agriculture Office explained.

5157
CSO: 5400/169

ANTI-RABIES CAMPAIGN IN FULL SWING

5,000 Animals Vaccinated

Maputo NOTICIAS in Portuguese 19 Jul 85 p 2

[Text] Having already vaccinated more than 5,000 animals, including dogs, cats and chickens, in Municipal Districts 1, 2 and 3, the campaign against rabies and Newcastle disease continues in Maputo. The house-to-house campaign is being organized by the Maputo Provincial Agricultural Administration for the purposes of combating these diseases and examining vaccinated animals.

A source at the Provincial Agricultural Administration informed this newspaper that in its first three days, the campaign had already vaccinated 98 dogs and 180 cats, and over 3,600 chickens were vaccinated against Newcastle disease on the second and third days.

The same source added that "This campaign has the advantage that the people do not have to go to the vaccination clinics as they did in earlier campaigns, which resulted in a large number of animals not being vaccinated."

Meanwhile, Paul Nkate, a Zambian student in the School of Veterinary Medicine at Eduardo Mondlane University involved in the campaign, stated to our reporters in the Maxaquene A neighborhood that:

"For me as a senior veterinary student, this is a wonderful opportunity to apply what I have been learning in theory in the classroom and at the same time contribute to eradicating diseases."

In conversation with one of the campaign officials, we were told that the campaign will be wrapped up in the Malanga neighborhood on 22 July and then get underway in the Camanculo A neighborhood.

The schedule is as follows: finish in Maxaquene A on July 24 and move to Maxaquene B; finish in Xipamanine on July 29 and move to Airport A; finish in Polana-Canico A on July 31, and start in Polana-Canico B on August 1.

The last anti-rabies campaign in Maputo was held in all the municipal districts last July and August, resulting in the vaccination of over 3,400 animals.

Facts About Rabies

The symptoms of rabies, which is incurable once contracted, are nervous excitability followed by paralysis and then death. It is caught from being bitten or scratched by rabid dogs or cats, usually strays.

Rabid animals exhibit abnormal behavior. They bark for no reason, foam at the mouth and attack other animals or people, even their owner. Finally, the animal is paralyzed and dies in a matter of days.

Anyone bitten or scratched by a rabid dog or cat should go to a hospital or clinic immediately.

The most effective means of combating rabies is to vaccinate all dogs and cats regularly, tag each animal's collar to show that it has been vaccinated, and destroy all cats and dogs in public places without vaccination tags. In this area, the Maputo City Council is carrying out the vital job of catching all stray animals.

However, a source in the City Council informed our reporters that this service has been temporarily suspended while the animal control truck is being repaired after a breakdown.

House-to-house Vaccinations

Maputo NOTICIAS in Portuguese 20 Jul 85 p 2

> [Text] "The house-to-house campaign for rabies and Newcastle vaccinations now in progress for the first time is the best way to fight and prevent rabies, a highly dangerous and sometimes fatal disease, and is a critical factor in maintaining public health," is the wide-spread feeling of the residents and authorities of some of the neighborhoods already worked about the campaign underway in Maputo since last Monday.

Local political authorities in Xipamanine neighborhood, where the campaign was begun on 15 July, informed NOTICIAS that more than 1,000 cats, dogs and chickens have already been vaccinated compared to 200 cats and dogs in July and August in last year's campaign.

Commenting on this difference, Xipamanine Neighborhood Mobilization Group Secretary Silvestre Manhica, stated, "There was less participation in last year's campaign because people had to take their animals to the vaccination clinics, so many animals were not vaccinated."

According to Mr Manhica, the current campaign represents a good opportunity for educating the people about the danger of rabies and the need to protect their animals' health. For example, they should see that dogs, man's best friend, have periodic medical check-ups.

The same official added that at least three known cases of persons bitten by dogs were reported in his neighborhood since the last campaign. "However, tests on the animals performed by health authorities showed that they did not have rabies, since they had been vaccinated in the last campaign."

Elaborating on the campaign to vaccinate against Newcastle disease, the Xipamanine Mobilization Group secretary said that cases of chicken deaths probably due to this disease have been recorded in his residential neighborhood. He said he thought this is the main reason why everyone who owns chickens should be concerned about having them vaccinated. As an example of the interest which the campaign has aroused in people, Mr Manhica mentioned residents who seek out the teams after they have already left their block to have their animals vaccinated.

Also, some of the residents in Maxaquene A neighborhood, another area where the campaign is underway, believe that the house-to-house approach is good because it reaches a larger number of animals and prevents the spread of rabies.

"I have three dogs and this is the third time they have been vaccinated. You cannot imagine how happy I am that the vaccination was done in my home. In earlier campaigns it was kind of hard, because we had to take our animals to the vaccination clinic and wait several hours for our turn," said Amelia Manuel, 35, a married resident of Block 26 in Maxaquene A neighborhood.

Preparations for Other Neighborhoods

Our reporters also went to Maxaquene B neighborhood, one of the areas where preparations are underway for holding the campaign scheduled to begin July 24. Matias Tembe, Mobilization Group neighborhood secretary, informed us that an intense effort to mobilize and educate the neighborhood about the importance of vaccination is being carried out by local political authorities, including ODM [not further identified] members and officials from DPA [not further identified] Livestock Services.

"On July 16 we held a meeting with all the residents of the neighborhood, and a DPA brigade explained what rabies is, how it can be prevented, and what the advantages of vaccination are for public health," said Mr Tembe. This same official also mentioned the results that had been achieved in earlier campaigns, stating that they had never been successful in the neighborhood because few people took their animals in to local vaccination clinics.

Veterinary Professors Visit Brigades

Maputo NOTICIAS in Portuguese 23 Jul 85 p 2

[Text] Last Friday, professors from Eduardo Mondlane University (UEM) visited brigades working in Xipamanine, Malanga and Polana-Canico A neighborhoods on a fact-finding mission concerning the performance of 30 students from the UEM Veterinary School assigned to the vaccination campaign against rabies and Newcastle disease underway in Maputo since July 15. Preparations for the campaign in Maxaquene B, Chamanculo A and Airport neighborhoods are proceeding smoothly.

Pedro Alcantara, Director of the Veterinary School, headed a team including professors Pavlov Bartko and Mario Mungoi, a vaccination instructor. Also on the team were DPA staff and employees, including Scilen Naldenov, DVM, and Joao Lourenco, an official from the Livestock Sector.

According to the director of the Veterinary School, the involvement of veterinary students in this campaign is intended to provide practical contact with a wide range of veterinary services. The director also stressed that it has been an annual tradition for students from this institution of higher education to become involved in practical projects in various areas of veterinary science to balance the theoretical with the practical.

Speaking about participation of the Veterinary School in the anti-rabies campaign, Mr Alcantara stressed that "the simple fact that we are training highly qualified veterinary teams is a step in the campaign to eradicate and prevent rabies." He added that basic measures which must be taken to reduce the incidence of disease, particularly in Maputo, include an animal vaccination program, a public education effort to explain the consequences of the disease, regular vaccination campaigns, and capturing and destroying all abandoned and stray animals in public places. "Until these three basic measures are taken, we will never easily eradicate rabies," explained Mr Alcantara.

Neighborhood Organization

Preparations for the campaign are progressing smoothly in the neighborhoods scheduled for vaccination later this month and early next month. Preparations in the Maxaquene B, Airport, Polana-Canico B and Chamanculo A neighborhoods consist of surveying the total number of animals in each neighborhood in order to facilitate vaccination efforts by the brigades. As part of the organizing effort, neighborhood political authorities and the Mass Democratic Organizations are undertaking a broad effort to explain the importance of the anti-rabies campaign to the public.

They are also performing a vital, high-priority service in directing the brigades from house-to-house in the neighborhoods being worked, and the work done in this regard by political authorities in Maxaquene A neighborhood is to be commended.

8844
CSO: 5400/171

EEC GRANT TO HELP FIGHT MOKO DISEASE IN CARIBBEAN

Kingston THE VINCENTIAN in English 26 Jul 85 pp 10

[Text]

The Commission of the European Communities has agreed a grant of ECU 900,000 (BDS $1.5 million approximately) from the European Development Fund to establish the measures for long-term control of Moko disease of bananas in Grenada and other Windward Islands. This was announced by the Delegate of the European Commission in Barbados, Mr. Joannes ter Haar.

Since 1982 the EDF has been financing a comprehensive programme to control and contain the spread of Moko disease in bananas and plantains, mainly in Grenada. The programme has successfully developed practical methods for identifying and destroying diseased plants and effective containment of the disease to Grenada and Cariacou has been achieved. However, Moko disease remains an extremely serious threat to the banana dependent economies of the Caribbean, especially St. Vincent and the Grenadines, St. Lucia and Dominica.

The new EDF grant will finance the measures to be launched by the Banana Industry for the long-term control of the disease.

The continuation programme, which will last for two years, includes the intensification of Moko disease control and eradication in Grenada and in Cariacou through further refined techniques. The provision of disease free plants for re-planting will be an important ancillary to the eradication schedule. Perhaps the most significant component will be the work carried out in St. Vincent, St. Lucia and Dominica, where campaign will be initiated to increase public awareness about the dangers of Moko, a highly infestious bacterial wilt disease, and the need to restrict movement of possibly infected planting material. Legislation to ensure the restriction on such movements may need to be considered. The two-year project will also be a transition period to enable the banana growing islands to establish arrangements to continue Moko disease control for the foreseeable future.

WINBAN is responsible for supervising the central programme, with guidance from a steering committee with representatives of the Ministries of Agriculture of the Windward Islands. The EDF funds will be used for field and other staff costs, the purchase of materials and equipment and for the services of a plant protection specialist.

CSO: 5440/086

CITRUS GROVE LOSSES BLAMED ON WHITE-FLY INFESTATION

Algiers REVOLUTION AFRICAINE in French 7-13 Jun 85 pp 16-18

[Text] Mohamadia: white-fly, water, etc. Part of it was neglect, but most of it was the lack of water that sapped the groves, that doomed them slowly but surely to certain death. The coup de grace was dealt by a minor insect pest entomologists call Aleurode, but laymen call white-fly.

Vast prairies reaching as far as the eye can see, under a gauzy sky now hot, now cool, we are in the very center of La Habra. Once the pride of a whole people, the groves of Mohammadia, Bou Henni, and Hacine, whose oranges were internationally prized, are now doomed to slow, inevitable death. There is no arguing with the evidence: Nature does not make mistakes: man does, though, with his hairbrained notions that can wipe out the labor of many days in a single day.

Several hectares of citrus groves that man has killed by his neglect are waiting to be uprooted. They have not yet been granted that privilege. To cap the irony, they are trying to breathe back into them the life they lost long ere now. They might as well order a dying man to get up and walk.

Here again, what man has yet to get through his head is that a tree is like a child: it feeds, it breathes, it needs to be cherished, to be enveloped in care. Without it, death is inevitable: it is only a matter of time. What has happened to the citrus groves of La Habra is the consequence of this carelessness. Now, to redeem themselves in the eyes of the citizens, those responsible for the massacre have found themselves a scapegoat: the white-fly. White-fly really has nothing to do with it. It was the neglect, first, but mainly the terrible thirst the groves suffered that, little by little, doomed them to a lingering death.

The stubborn facts are there to back up this lamentable verdict. The citrus groves in LaHabra, which cover 6,504 hectares, show

clear evidence, according to the clear explanations we were given by agricultural experts, of very severe vegetative deprivation due primarily to lack of irrigation.

Several hundred hectares, or more than 70 percent, are on the critical threshold. As best the experts can tell, this grove had been given, from 1977 to 1982, only two cursory waterings, plus a little bit of water in 1983. Last year, it got its coup de grace: not a drop of water except during the rainy season, which, as we all know, was not very rainy at all.

This deprivation of its life-source sets off, in the tree, a natural reaction which consists of total closure of the stomata, a more careful use of its reserves, and, ultimately a gradual shutting-down of its physiological activities. All this leads, as a consequence, to collapse of the vital organs that consume its reserves, thereby affecting the fruit the tree produces. "This phenomenon is already visible in almost the entire grove."

These reserves which the tree quite naturally displays for its survival are -- troubles never come singly -- willy-nilly eaten by parasites of the type called "piercing-sucking" insects, including the little white moth called Aleurode. This is what led the local agronomists to say that the grove was in its death-throes, given the association of these two very harmful random factors.

The decline of La Habra's orange grove is certain. Already several parcels have been wiped out, and others are on their way there. There is no way, we are told, to save them no matter what heroic measures may be undertaken to do so.

Despite all the different attempts made locally over the past 7 years to assure the survival of these groves and in view of their alarming state, as of now, the critical threshold has been crossed. Local officials estimate that the only solutions still untried that might cut the damage are apparently not within their means. They must, they say, be studied at a higher level.

A District's Assets

The irrigable cultivated land of Mohammadia covers a total of 17,500 hectares. Citrus groves represent38 percent of this agricultural potential. At present, the usable agricultural area (SAU) in this district -- incidentally, the biggest in the country -- is 12,690 hectares of arable land.

Furthermore, the portion set aside for citrus groves is the only land that has been cultivated, the rest lies fallow, neglected, in a state of advanced deterioration. It is true that some precautionary measures have been taken since 1975; even so, they pale to insignificance because not all of them bear the stamp of seriousness.

Just one edifying example: 1,200 hectares of dead orange-trees have been uprooted, but only 300 have been planted!

This half-hearted and incomplete reconstitution proves, on the face of it, that the grove was already struggling against persistent handicaps and burdens which a number of officials have corrected, here and there. The region's citrus growers were apparently thwarted in their attempts to reconstitute the grove, and that is what led them to uproot, rather than plant.

Because growing fruit-trees entail constant maintenance and continual attention, and, most of all, regular watering, people just don't engage in it, since water is unavailable despite the presence of two dams in Mascara wilaya. And that is precisely the rub.

The intrisic causes for the non-availability of this precious liquid have many roots. The Fergoug and Bouhanifia dams are largely silted up. The heavy silting sharply curtails their capacity, leading to a steady reduction in water allocations for irrigation; but even if the district lacks it, the industrial zones of Arsew and Oran are still drawing their full quota. Last year, despite plentiful rainfall in the region, the water reserve for the two dams together was estimated at 25 million cubic meters. Initially these dams were designed to irrigate the 17,500 hectares of La Habra district. Somehow, in the rush, that dam was equipped with a complete system of directional channels which in fact allowed it to provide drinking water to the city of Mohammadia and to the communes around it. At present, the distribution of this water and its uses looks like this:

DESTINATION	WATER QUANTITY IN MILLIONS CU. METERS
Irrigation (Oran, Arzew, Mohammadia)	4.90
Drinking water supplies CAEP	10
Dam security	4
Silting	4
Evaporation, infiltration, and miscellaneous losses	2.10
TOTAL	25

As a result of development in the Arzew industrial zone, there was a heavy demand for water, which had to be pre-empted from the quota for Mohammadia's agriculture -- to its detriment, inevitably. This happened at the same time as the the short-term, and admittedly short-sighted decision was made between Arzew and its industry and Habra and its agriculture. That choice was made when Algeria was in the throes of industrialization. Now that our industry is substantial, agriculture must again be given its proper priority, because the future depends on it. Besides, the second 5-year plan gave priority to the hand, and that is only fair.

A Flawed System

Another side-effect contributed to the decline of the district: the system of irrigation ducts.

By reason of its age (it dates back to 1936), the lack of maintenance and repairs, and the various and sundry vagaries of Nature that have assailed it, the system is limping along at about 10 percent of its design capacity. This advanced deterioration entails heavy losses of the waters set aside for irrigation of the groves. The losses are estimated at 50 percent. True, a renovation program has been adopted, but the work is still in its early infancy. It will take years of hard labor and fabulous investment to complete repairs. There are some 337 kilometers of concrete pipes, and 300 kilometers of them require immediate replacement. The multiplicity of claims filed locally have led to agreement on replacement of only 20 kilometers. However, only 11 kilometers have been completed. And that is not very much at all.

The technical experts on the site, however, point out that, owing to a lack of proper preliminary studies, the newly designed components are 7 meters long, and must be bonded together, whereas those they are replacing were only 5 meters long. The upshot is that the entire shoring will have to be resurveyed, since any error in the level would inevitably skew the course of the water pipe. That shoring, local officials say, was not laid properly in the first place.

As we said earlier, the Fergoug and Bouhanifia dams were designed solely to provide irrigation for the Mohammadia district. From 1970 to 1977, the area under cultivation totaled some 12,000 hectares. The irrigation water quota varied from 80 to 70 million cubic meters. Given the range of crops the land can sustain, growers engaged in diversified speculative crops in which citrus fruiis dominated. From 1978 to 1982, that share of water was cut by half; the amount delivered varied from 34 to 43 million cubic meters. And that worked out to two irrigations per year for the grower. In 1983, the water supply dropped to a single irrigation per year, and, as ill-luck would have it, during all of 1984 they got only a short 5 million cubic meters, to be shared among groves and other crops that needed water.

Untoward Consequences

By definition, they say that "plants don't eat: they drink." Nutrients must therefore be put into solution so that they can be absorbed by the plant. In order to foster normal development in citrus trees, to assure productivity that is economically sound and agronomically possible and regular, and, finally, to enhance their longevity -- some citrus trees are more than a century old -- each one must have 12,000 cubic meters per hectare per year of water, including rainfall. In Habra, though, rainfall rarely exceeds 350mm per year, or 3,500mm per hectare. The difference must perforce be made up by irrigation. The trouble is that it is absolutely impossible to ask for that much water. The water-supply technical people have cut that vital supply back to 6,000 cubic meters per hectare, thereby delivering a low blow to citrus production. Nor, unfortunately, is that all: the initial quota was not adequate even before this latest cutback, and now the pitiful allowance is not delivered.

Since 1972, the amount of water available for the groves has almost never exceeded 27 million cubic meters, or about two-thirds of the reduced requirements. The agricultural experts tell us that this total lack of irrigation water, which has been violently demonstrated over the past 7 years, has been steadily getting worse. This has led to some untoward consequences.

First of all, a number of annual or perennial crops were eliminated from the district's production plans (forage crops, livestock, market-gardening...). Next, some agronomic measures were taken to enable the trees to survive in the first place, hence the uprooting of dead citrus groves. Lastly, fruit production is steadily declining; by way of comparison, the output that in 1970 came to 110,000 tons has shrunk to 40,000. This year, it is all threatened, and people here make no bones about calling it a catastrophe.

Field Hands Leaving

In Mohammadia District, a farming area, 70 percent of the working population was employed in the primary sector. Today that trend is declining. Farm-hands are deserting agriculture for what seem to be better-paid jobs in other sectors, That is one set of data. The other set takes the form of instructions sent out by the agricultural oversight authorities, which were issued "with a view to stabilizing the labor force." Decisions were made to utilize this production factor as a function of a previously defined employment plan. It was predicated, we are told, solely upon the planting plans of farms within the district. It is therefore vital to figure out which crops would be able to support mandatory and adequate utilization of this manpower. Since water is extremely limited, so is the whole range of possible crops. The people making farm policy are calling for very difficult solutions that will have a negative impact on the farm worker: he is required to work 10 to 15 days per month, according to the farm's prosperity. That is going to push him, inevitably, to look toward other sectors.

If Habra district is gradually losing its agricultural heritage, is it necessarily the farm-hands' fault? Local leaders are dubious.

Inadequately maintained, not to say neglected, the local grove is under attack from parasites. Any tree that is already pshysiologically weakened by lack of water is subject to recurrent infestation by a "little white moth" known as the "wooly Aleurode." In the larval stage, this insect is a voracious eater, and further damages the plant. This blasted larva pierces the bark and sucks the sap, and excretes sweet, waxy scales. Funghi develop on the sweet patches, and form fumagine crusts that eventually smother the tree.

In coping with this endemic situation, two treatments are required and they must be administered simultaneously. The tree's reserves must be restored immediately. The grove must get regular and repeated phytosanitary treatments.

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CSO: 5400/4603

PINE BEETLE DAMAGE REPORTED IN CARIBOO REGION OF B.C.

Vancouver THE SUN in English 21 Jun 85 p A1

[Article by Don Whiteley]

[Excerpt]

Mountain pine beetles are jeopardizing $500-million worth of lodgepole pine in the Cariboo and the provincial government is taking emergency measures to salvage the timber.

"It's an explosion," said Chief Forester John Cuthbert. "If we don't move quickly we'll lose the wood."

Forests Minister Tom Waterland agreed, saying a recent decision by his ministry to increase the volume of timber to be harvested is an emergency response to the problem.

Last week, Waterland announced that the rate of cut for timber in the Williams Lake and Quesnel timber supply areas has been increased by 50 per cent in an effort to cut the bug-infested trees while they still have some commercial value and impede the spread of the infestation.

Vaughn Palmer, A4

"The timber will only be commercially viable for a short time," Waterland said Thursday.

The annual rate of harvest in the Williams Lake TSA is 2.5 million cubic metres. For the Quesnel area, it is 2.3 million cubic metres. That volume has been increased by 2.4 million cubic metres annually for the combined timber supply areas.

The annual allowable cut for the whole province is about 73 million cubic metres.

Harvesting will take place over a five-year period, although for some of the more remote areas it will be spread over 10 years.

Ministry officials say about 26 million cubic metres of timber are infested by the beetles. Failure to cut those trees quickly would result in the infestation of 180 million cubic metres, likely within five years.

"It's the most serious bug problem B.C. has faced," said E.V. Scoffield, manager of the Cariboo Lumber Manufacturer's Association. "There is more killed or damaged timber in this region than in the rest of the province put together."

CSO: 5420/28

SURVEY SHOWS BUDWORMS THREATEN ONTARIO TREES WORTH MILLIONS

Toronto THE TORONTO STAR in English 13 Aug 85 p D4

/Text/

Spruce and jackpine budworm infestations grew by 50 and 300 per cent respectively in Northern Ontario in the past year, threatening billions of dollars worth of trees, federal forestry surveys indicate.

Although there have been previous infestations of the budworm, the new outbreak, which began years ago, is growing dramatically and is beginning to overtake forest growth in the northwest part of the province.

While pesticide spraying by the provincial government in June helped control the pests, more spraying is needed to stop the infestation, industry officials say.

Budworms surveyed

The area of moderate to severe infestation of spruce budworm grew to 12.3 million hectares (30,392,883 acres) this year from 8.7 million hectares (21,497,405 acres) in 1984, Gordon Howse, head of the insect unit of the Canadian Forestry Service, said in a telephone interview yesterday.

Jackpine budworm infestation grew to 3.7 million (91,425,747 acres) this year from 1.15 million hectares (284,111 acres) last year, he added. The figures are based on aerial mapping surveys taken each summer by the service.

"The budworm can and will occupy all the productive forest with desirable species in it," Howse said. The jackpine budworms feed on jackpine trees while the spruce budworm likes fir, white spruce and balsam.

Morris McKay, vice-president of woodlands operations for Great Lakes Forest Products Ltd. of Thunder Bay, said there is about $14 billion worth of wood at risk in Ontario in terms of the amount of newsprint it could produce.

And E. B. Eddy Forest Products Ltd. estimates the value of jackpine at risk in its licensed cutting area at $1 billion.

Because of this, McKay said, the provincial government is misguided in its current policy of spraying only the trees that will be harvested within five years. Some 30- to 40-year-old stands would be sacrificed.

"Really what they're saying is that if a stand is 40 years old and it is attacked they're just going to let it go. You end up that you've wasted 40 years of growth."

"The budworm is destroying the forest much more quickly than we can salvage it," Joe Bird, president of the Ontario Forest Industries Association, told a media briefing last week.

Howse said the budworm has traditionally been active in the northeastern part of the province, but the pests now are moving west as they use up food in the east.

The budworm can be controlled with fenitrothion or a biological control called bacillus thuringiensis (Bt).

CSO: 5420/30

CROPS IN TETE THREATENED BY GRASSHOPPERS, MICE

Maputo NOTICIAS in Portuguese 3 Jul 85 p 2

[Text] An infestation of grasshoppers and mice caused serious damage at state farms located in the Wiriamu communal settlement in Tete during the 1984-1985 farm season, reports from that part of the country indicate.

The crops most seriously damaged were corn, sorghum, peanuts, cucumbers and squash.

Although limited results were achieved in the harvest during the last season, the people of Wiriamu are making every effort to ensure satisfactory results in the coming harvest.

In fact, farmers in the family sector in that region are increasing their areas planted to crops.

Reports from that province further indicate that some peasants who did not harvest enough corn are facing serious supply problems.

"We do not want our children to suffer any more from hunger, as happened last year," one peasant in the Wiriamu settlement commented during preparations for the 1985-1985 farm year.

On the other hand, the peasants in that settlement also engage in the raising of such animals as cattle and goats, as well as chickens and ducks.

5157
CSO: 5400/169

END