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International Cooperation and Challenges in HIV/AIDS Epidemic Regions: – An Observation through NGO Activities in the Central African Republic –

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I. INTRODUCTION

Today's world is threatened by an unprecedented infectious diseases -- AIDS. It appears that this disease is presenting a methodology for creating a health-oriented society. HIV/AIDS differs from other conventional diseases in that people tend to shun the infected patients rather than the disease itself. In addition, PWH/PWAs (people living with HIV/AIDS) are forced to fight against the fear of the onset of the disease and death. To inhibit HIV/AIDS from spreading and to live together with PWH/PWAs, it is essential to utilize personnel with various backgrounds in each region and to create a comprehensive health-oriented environment that covers everything from disease prevention to human rights protection.

On the other hand, extreme discrepancies in the level of people's health have been observed among nations in today's world. We should be aware of our responsibilities as members of the human race, and we must work together by transcending national borders. Therefore, prompt actions are required to establish and expand international cooperation systems.

This research focused on the status quo of health care, medical treatment, and the activities of the Non-Government Organization (NGO) in the Central African Republic (hereinafter referred to as "R.C.A."* or "Central Africa". This NGO is attempting to assure that its citizens have a minimum standard of living even though they suffer from the threat of ethnic extinction caused by the current spreading of HIV/AIDS. Also, prospects of international cooperation and consequent challenges are examined in the field of regional health care and medical treatment.**

II. OBJECTIVE

Investigations were made into health care and medical treatment in Bangui as well as the NGO activities for HIV/AIDS prevention and PWH/PWA care in the same city. Through analyzing these activities, risk factors for the increase in HIV carriers were examined. This paper reveals international cooperation and the challenges it faces in health care and medical treatment in the region.

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III. SUBJECT AND METHOD

Subjects were health and medical facilities under the Japanese NGO program in Bangui. The investigation mainly focused on the facilities in Amis d'Afrique.

Investigations were made from June 1 to 23, 1994, employing such methods as publication reviews, interviews, and the observation-by-participation method.

Investigated items were: population and living conditions, health and medical treatment, and trends in HIV infection.

IV. RESULTS OF THE INVESTIGATION ON POPULATION AND LIVING CONDITIONS (Table 1)

1. Environment ⁽¹⁾⁽⁵⁾

Located right on the equator, R.C.A. is an inland country in Africa with a total area 165 % the size of Japan and a total population of 3.2 million from about 15 different ethnic groups. The capital Bangui has 524,000 residents. About 48% of the total population lives in urban areas, including Bangui and other cities.

2. National budget ⁽¹⁾⁽²⁾

The 1994 national budget (fiscal year: January to December) showed 49.2 billion CFA francs in revenue and 65 billion CFA francs in expenditures. More than 90% of the expenditures were allotted for salaries of government officials, while 5% to 6% were allotted for machinery expenses, including those for communication. Business funds occupied a mere fraction; as a result, business is largely dependent on assistance, in the form of funds, from other countries.

3. Industry (as of 1991) ⁽²⁾⁽³⁾⁽⁴⁾⁽⁶⁾

Per capita GNP was US \$390 and the real economic growth rate from 1980 to 1991 was 1.4%. Although more than 80% of the nation's work force is involved in agriculture, 91% can not attain a standard of living above the poverty level. About 58% of the land is forest. Increases in annual lumber production and poaching have recently become controversial issues.

4. Education (as of 1990) ⁽²⁾⁽³⁾⁽⁶⁾

Nine years of compulsory education are completed by 67% of the population (51% for women). About 11% of the total population (6% of the women) attend three years of secondary education. The literacy rate for adults (age 15 or older) is fairly low, only 38% (25% for women).

Those who have completed compulsory education can qualify for entrance into vocational training schools for midwife assistants or nursing assistants. Two years of training is required before becoming midwife assistant, while nine months of training is mandatory for prospective nursing assistants.

The secondary education graduates are qualified for entrance into a midwifery college or nursing college.

Three years are required for obtaining a midwifery license, while two years are necessary for a nursery license.

Graduates of the medical school five-year course are eligible to be assistant physicians. An MD degree is conferred on those who have completed both six years of training at a medical school and a doctoral dissertation during the seventh year.

5. Health and medical care (as of 1994)

Whereas the actual necessary expenses are 11.463 billion CFA francs (8.1 billion for medical equipment, 100 million for administration, 363 million for medication), the government allots only 6.825 billion CFA francs (10.5% of the national budget) for health and medical purposes and 680 million CFA francs for funding the program. Most of the necessary medical equipment is purchased through aid from foreign countries. As of the end of July, one-third of all necessary medical equipment was supplied by such assistance⁽²⁾.

The number of those who are involved in this field breaks down⁽⁶⁾ as follows: 110 doctors (one doctor per 25,000 people), 150 assistant doctors, 500 nurses and midwives (one nurse/midwife per 5,000 people), 500 nurse assistants and midwife assistants, 70 laboratory technologists and 100 assistants. This clearly illustrates that the number of medical personnel is not sufficient.

V. RESULTS OF THE INVESTIGATION IN HEALTH AND MEDICAL FIELDS (Table 1)

1. Hygiene ⁽¹⁾⁽²⁾⁽³⁾⁽⁹⁾

The population breaks down as follows: 45% are 14 years of age or under, 44% are between 15 and 49, and 12% are 50 or over. The average life expectancy is 47 years. There are 715,000 women of child bearing age (15 to 49). The birth rate is 41.6 per 1,000 people, while the mortality rate is 16.7 per 1,000 people. The under five mortality rate is 179 per 1,000 people. Malaria, diarrhetic diseases, and acute respiratory infections and malnutrition are the three major causes of death. Food production has increased annually at the rate of 2.1% (-0.3% increase per capita)⁽⁴⁾, and the average calorie supply per capita is 82% of the daily requirement.⁽³⁾ The average annual population increase from 2010 to 2025 is estimated to be 2.6%. Population is estimated to increase to 7.33 million by the year 2025⁽⁶⁾.

The country faces the threat of malaria throughout the year, and occasionally the prevalence of hepatitis, yellow fever, meningitis, and conjunctivitis. Lately, there has been the fear of a sudden prevalence of AIDS. Since most patients of the disease fall into the age group 15 to 35, nationwide survey is now being considered. Other important tasks include building lavatories, reducing food contamination, and protecting people from being infected with trypanosoma, lepra, and onchocerca.

The water supply is available for 12% of the total

Table 1. Health and Medical Statistics (Countries South of the Sahara, Central African Republic, Least Developed Countries)

Index	Region	Countries South of the Sahara	Central African Republic	Least Developed Countries
Infant Mortality Rate per 1000 births (1992)		111	105	114
U5MR ²⁾ per 1000 births (1992)		181	179	179
Average Annual Decrease (% , 1980-92)		0.9	1.0	1.8
Total Fertility Rate (1992)		6.4	6.2	6.0
Average Annual Decrease (% , 1980-92)		0.4	-0.3	0.7
Maternal Mortality Rate per 100,000 births		610	600	590
Average Annual Population Growth (% , 1980-92)		3.0	2.6	2.7
Total Population (million)		533	3.2	537
Urban Population (%)		30	48	21
Per Capita GNP (US\$)		505	390	240
Average Annual Increase in Income (% , 1980-91)		-0.4	-1.4	0.3
ODA Funds Received (million US\$)		14,548	225	14,263
ODA/GNP Ratio (%)		10	19	15
Average Life Expectancy at Birth (year)		51	47	50
Adult Literacy Rate (%)		51	38	43
Male (1990)		61	52	54
Female (1990)		41	25	32
Primary School Enrolment (Gross) (%)		68	67	68
Male (1986-91)		76	83	74
Female (1986-91)		60	51	57
Low Birth-weight Infants (%)		16	15	24
Goiter Patients (%)		16	63	20
Daily Calorie Supply (% , daily requirement = 100%)		93	82	90
Population with Access to Safe Water (%)		43	24	49
Urban		75	19	64
Rural		35	26	46
Population with Access to Sanitation (%)		35	46	33
Urban		57	45	61
Rural		27	46	26
Population with Access to Health and Medical Services (%)		56	45	48
1 year old children vaccinated for BCG (%)		62	94	70
1 year old children vaccinated for DPT (%)		45	77	52
1 year old children vaccinated for Polio (%)		45	77	51
ORT ³⁾ Use Rate (%)		57	24	37

1) This table is based on data from a UNICEF report, *The State of the World's Children 1994*, pp. 60-83, UNICEF, 1994.

2) Under Five Mortality Rate

3) Oral rehydration therapy

population (14% in urban areas, 11% in rural areas)⁽²⁾. Population with access to safe water is only 24% (26% in urban areas, 19% in rural areas). Sewage systems are established in a limited number of areas, while most people use holes dug outdoors as a lavatory and dispose of waste water in roadside ditches. There are no designated trash disposal sites. Corpses are buried in specific areas, which are not supervised by the government.

2. Health and medical conditions

Most of the health and medical institutions are run by the government. Roughly speaking, these institutions form five large areas of regional medical institutions. Within each large area, middle-sized or small areas are formed and the institutions are responsible for patients living in their own areas⁽²⁾.

Initial medical examinations at hospitals or clinics cost 2,000 CFA francs (about ¥400). In Central Africa, patients first receive a general examination by a nurse, and if necessary, they proceed to an examination by a doctor. Hospitalization is permitted only for patients who purchase medicine.

Bangui and its surrounding areas have all of the general hospitals in the country, three regional clinics, 45 health and medical centers, a leper colony, 15 prevention centers, and 47 health care stations⁽²⁾.

In the city, the STD (sexually transmitted disease) Center is run by the aid from the EU and the Pasteur Institute.

The STD Center is handling all HIV tests in the nation, as well as testing for other sexually transmitted diseases, counseling, and offering preventive education. Each test costs 2,000 CFA francs. The Pasteur Institute is mainly handling tests and the research of infectious diseases. Each test costs 20,000 CFA francs.

3. Cooperation between the NGO and health/medical institutions

As mentioned above, Amis d'Afrique is a Japanese NGO program for HIV/AIDS prevention and PWH/PWA care. It was organized at the request of the Ministry of Health in R.C.A. It is run by donations from about 8,000 Japanese and a Japanese fund for volunteer activities. The annual budget is ¥20 million.

In 1993, Amis d'Afrique opened its office at the "Boi-Rabe Center for Medical Treatment, Delivery and Health Management for Mothers & Children." Nine staff members from R.C.A. and two Japanese staff members (director and examiner) are working together to assist health management and medical treatment in each medical institution in the area.

The director of Amis d'Afrique visits four institutions every morning to check the progress of the program, to collect responses and opinions from staff members, and to help solve technical problems. In addition, he calls monthly meetings of supervisors, encouraging them to analyze crucial problems and tasks, as well as to maintain the cooperative system.

The examiner is in charge of tests performed in the

center, while nurses are in charge of general examinations at the center and supplying prescribed medicines. At this center, medication is supplied at 50% of the market price.

The center is also prepared to send ambulances at anytime under a system called the "24-hour Emergency Patient Transportation Service." This service provides about 65 ambulance dispatches during an average month; 46.2% of cases involve spasm or dehydration in children, 30.8% involve abnormal labor, and 23% involve patients in critical condition who cannot move by themselves.

The medical treatment section of the center is handling general examinations, infant and adult examinations, treatments, tests (urinalysis, fecal examinations, smear tests, blood tests for syphilis, malaria, and filaria), and drug prescriptions. The delivery section is handling 150 to 200 childbirth/ puerperium cases a month. The section for health management for mothers and children carries out examinations of newborns and pregnant mothers as well as vaccination.

4. Care by Amis d'Afrique for patients including PWH/PWA (Fig. 1, Photographs A-D)

Among patients at medical institutions in the region, Amis d'Afrique distinguishes between those that are unlikely to be infected with HIV, those who might be infected with AIDS, PWH/PWA, children suffering from malnutrition, and those who are in poverty. The program staff register these people, and if necessary, send free food, clothing, medication, and offer such free services as medical treatment, blood tests, and visits for medical treatment or nursing. Moreover, the program is running workplaces to encourage people to improve their own lives and to cooperate in improving their communities. In these workplaces, porridge is served twice a week. Apparel manufacturing and farming have been performed there.

At the end of July 1994, 88 people are registered as AIDS patients and 20 of them have already passed away. Outpatients receive AIDS treatment once a week, and those who cannot commute to the hospital receive visiting care, and 120 people are registered for poverty and malnutrition.

5. HIV/AIDS Prevention Activities by Amis d'Afrique (Fig. 2; Photographs E-H)

Two types of prevention workshops have been conducted.

The first type of workshop is offered at various places in the city (33 areas) and in surrounding counties (areas within a 200 km radius). Every week, the program staff visit each place to give a workshop.

The second type of workshop is conducted in the health and medical centers for mothers and children. It is given twice a week to students, teachers, and staff of elementary schools in the relevant areas. The workshop is also given to pregnant mothers who come to regional maternity workshops. The program hires instructors and



A : PWH/PWA outpatient baby



B : Serving porridge to malnourished
children at the workplace



C : Family of an AIDS patient



D : Dying AIDS patient receives
home care (age: early 20s)

Figure 1. Amis d'Afrique patient care activities for PWH/PWA (photographs A - D)



E : Inner-city prevention workshop
(1)

F : Inner-city prevention workshop (2)



G : Rural prevention workshop (1)

H : Rural prevention workshop (2)

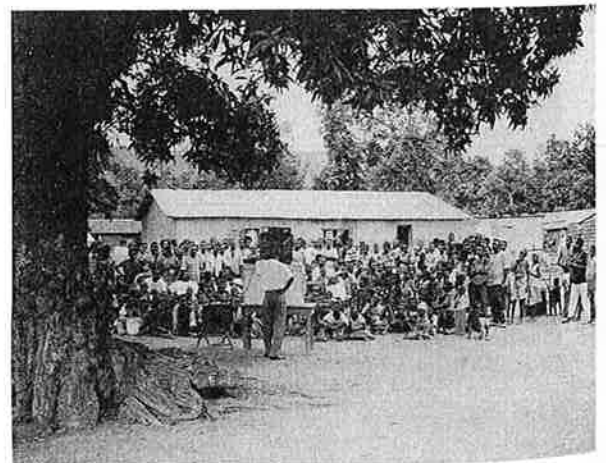


Figure 2. Amis d'Afrique HIV/AIDS prevention activities (photographs E - H)

Table 2. HIV/AIDS cases in Central-African Republic (1994 Forecasts by STD Center in R.C.A.)

Age Group	Predicted number of HIV ⁺ /AIDS ⁺ cases						Proportion of HIV ⁺ /AIDS ⁺ cases to population (% within age group)				Distribution of HIV ⁺ cases by age (% of total HIV ⁺ cases)		Distribution of AIDS ⁺ cases by age (% of total AIDS ⁺ cases)	
	1994			1999			HIV ⁺		AIDS ⁺		94	99	94	99
	Population	Number of HIV ⁺ cases	Number of AIDS ⁺ cases	Population	Number of HIV ⁺ cases	Number of AIDS ⁺ cases	94	99	94	99				
Total	3,024,566	125,182	10,131	3,339,366	199,902	21,949	4.1	6.0	0.3	0.7	100.0	100.0	100.0	100.0
Under 14 years old	1,307,921	7,290	2,234	1,444,050	14,373	5,050	0.6	1.0	0.2	0.3	5.8	7.2	22.1	23.0
15-19 years old	311,842	22,399	363	344,299	35,251	777	7.2	10.2	0.1	2.3	17.9	17.6	3.6	3.5
20-49 years old	1,086,907	84,882	6,665	1,200,032	133,581	14,263	7.8	11.1	0.6	1.2	67.8	66.8	65.8	65.0
Women	569,188	44,799	3,427	628,429	70,501	7,334	7.9	11.2	0.6	1.2	35.8	35.3	33.8	33.4
Men	517,719	40,083	3,238	571,603	63,080	6,929	7.7	11.0	0.6	1.2	32.0	31.6	32.0	31.6
Over 50 years old	317,897	10,610	869	350,984	16,698	1,859	3.3	4.8	0.3	0.5	8.5	8.4	8.6	8.5

This table is based on the data from reference 13 (Bangui, *République Centrafricaine Ministère de la Santé Publique et de la Programme National de Lutte Contre le Sida*, P17, Bangui, 1994).

staff every time it has this type of workshop. The people hired range from doctors and nurses to officials of the Health Ministry. Usually 10 people are hired for each workshop.

VI. RESULTS OF INVESTIGATION ON HIV INFECTION TRENDS

1. Actual trends of HIV infection in R.C.A.

As of the end of July 1994, 16 million HIV patients from across the world were reported to the World Health Organization (WHO). Among them, 62.5% (10 million) were patients in countries south of the Sahara⁽⁷⁾. AIDS morbidity in R.C.A. ranks 16th in the world, recording 28.67 patients per 100,000 people⁽⁸⁾.

According to 1992 statistics from the Ministry of Health in R.C.A., over 15% of adults aged 20 to 49 were discovered to be HIV positive⁽¹³⁾, and 3,730 AIDS patients had emerged from this age group by June 1993⁽⁹⁾. Another statistical report on HIV/AIDS infection trends was released by the STD Center in 1994 (Table 2). This report estimates that HIV positive patients make up 6% of the total population, and in adults aged 20 to 49, 11.1% are estimated to be HIV positive. There are also other estimates that claim 70% to 80% of prostitutes are infected with HIV; however, the actual number is not known.

Amis d'Afrique conducted HIV and TPHA (Treponema pallidum hemagglutination) tests. Ten samples were randomly examined from 250 frozen blood samples of patients. All of these 250 patients were pregnant women who had maternity examination by Amis d'Afrique from December 1993 to February 1994,

or were patients who initially visited the clinic of the organization for checking sexually transmitted diseases during the same period. As a result, six patients were found to be HIV positive, and two of them were pseudo positive, and one patient was TPHA positive. An additional HIV test was carried out after this. Eighty-four subjects were chosen from all of the pregnant women who had maternity examinations by Amis d'Afrique from April to June of 1994. The extracted 84 patients (approx. 34% of the total number of patients) were diagnosed as candidiasis. Another 34.5% (29 patients) were found to be HIV positive.

2. Characteristics of the HIV infection route in R.C.A.: Analysis through participation in NGO

Since medicine is hardly available and almost no homosexual intercourse or drug abuse was observed, the main HIV infection route in the country is heterosexual intercourse and transmission from mother to child.

(1) Social Norms of Sexuality

a. Polygamy

Women usually start sexual intercourse upon reaching puberty (after their initial menstruation). There are also cases of babies being born to girls as young as 14 years of age. Approximately one-third of all couples have been formerly married.

Only 10% of children are raised in families with both parents; most children are raised by their mothers. Traditionally, married women refrain from having sexual intercourse with their husbands for one year after childbirth.

In many cases, men or women are allowed to have

separate sexual relationships. Especially, men have much more freedom in having relationships with other women.

b. Proliferation

The number of children in a family is seen as measure of one's happiness. The more children in a family, the happier the family members feel. Therefore, both sexes have fairly positive attitudes toward having sexual intercourse for the purpose of bearing children. In particular, many women have a strong desire to become pregnant when they have a relationship. Even if menstruation has stopped in the last phase of AIDS, as a result of lowered physical strength, many women wish to have a pregnancy test rather than medical treatment or other tests, demonstrating their fear of losing fertility.

c. Increasing Prostitution

In a society based on such traditions as polygamy and separate living arrangements for partners, women are fully involved in child bearing, running a household, and earning wages to support their families. In Central Africa, most people rely on a small amount of money that they earn from selling agricultural products. Only a few people receive salaries. However, the market is based on currency, so one has to purchase daily necessities with cash. This is the main reason why prostitution is undertaken not only by prostitutes but also by other women who need to earn money for living expenses. Amis d'Afrique conducted a questionnaire of male patients registered on the program list and of its male staff members and asked whether or not they had bought prostitutes, and if so, why. Most responded that they had bought prostitutes, because the prostitutes seduced them. The average fee was said to be 500 CFA francs (approx. ¥100).

(2) Lack of Knowledge

In 1992, the Ministry of Health conducted a survey on people's knowledge of AIDS. The survey revealed the following facts: (i) 95% have heard about AIDS, mainly from the radio (80%); (ii) 95% know the disease is transmitted through sexual intercourse; 57% know about transmission through blood. However, only 7% know about transmission from mother to child, which was discovered to be the least recognized factor. (iii) 63% answered the disease can be prevented by using condoms. (iv) 95% know about condoms; however, only 45% have ever actually used them. U.S.-made condoms are commercially available at 40 to 60 CFA francs per pair.

(3) Prevalence of STDs

In 1992, out of all the patients at the STD Center, 14% were infected with syphilis, 55% of male patients had gonorrhea, and 64% of female patients had vaginitis. In addition, the Ministry of Health estimates that 90% or more of the population has *Entamoeba histolytica*⁽¹³⁾. More than half of the pregnant patients, who had received maternity examinations from April to June of 1994 were found to be trichomonas positive.

Women, from their childhood, are accustomed to using a bidet every morning, and adult women also use

it, even before sexual intercourse. The use of bidet can cause a decrease in normal vagina bacteria and serves as one of the reasons for the frequent occurrence of vaginitis. Although it bears some negative effects, this custom can be utilized to prevent STDs in future.

3. Prognosis for AIDS Patients and Problems in PWH/PWA Care (Fig. 1; Photographs A to D)

Over 90% of the patients who visited the Amis d'Afrique clinic due to poor physical health were found to have "HIV overflow (strongly HIV positive)." These 88 registered patients were 46 years of age or younger. Among them, the newly registered patients after 1994 were newborns and young women from 18 to 20. It takes from a few days to one year before a patient dies after these symptoms manifest.

AIDS is strongly believed to be a disease caused by devils. For this reason, it is quite difficult to explain the facts to infected people and their families. Carelessly informing the patient may lead the patient's relatives to accuse his/her spouse, or may trigger tribal conflict. At present, the staff of Amis d'Afrique attempts to make the facts of infection known by choosing one of the relatives of the patient who seems to be the most reliable. Nevertheless, the soaring number of registrations of infected patients is posing a big challenge for the program. How to tell the patients about their illness, treatment of patients, and encouraging the patients' will to live are gaining importance.

4. Problems with visiting HIV/AIDS prevention workshops (Fig. 2, Photographs E-H)

Thirty-eight visiting workshops on HIV/AIDS prevention were held by the end of July, 1994. The number of participants for these workshops totaled 15,000, people aged 15 or over. On average, 394.7 participants attended each workshop. If we included participants aged 14 or under, the number rises to between 594.7 to 694.7. The workshops last for two and a half hours, consisting of a lecture with a video, instructions for using condoms, a lecture delivered by a physician, questions and answers, and a pop quiz.

More than ten questions were raised in each workshop on average. The most frequently asked question was whether or not a condom may contain the AIDS virus. Also, the following questions were frequently asked:

- (1) How can we use a condom that has the risk of breaking?
- (2) What if a woman refuses to use condom?
- (3) Is there any danger in having a meal with an AIDS patient?
- (4) Do AIDS patients have herpes as a manifested symptom?
- (5) Can we tell an HIV-infected person only from his/her appearance?
- (6) Can HIV virus be transmitted through breast-feeding?
- (7) Where is HIV/AIDS originally from?

In the pop quiz, only a few participants chose "transmission from mother to child" as an infection route. This revealed the lack of knowledge in this area.

To make the workshops successful, the following problems need to be solved.

First, children become bored after the video presentation and tend to disturb the smooth process during the question time and disturb the adult's concentration during the pop quiz. Next, upon closing, adult participants usually start blindly asking the workshop staff to give them more condoms.

A measure for the first problem is currently under consideration. Having a workshop for children along with the one for adults is being considered. Amis d'Afrique is dealing with the second problem by temporarily not distributing condoms to participants, because many participants sell condoms given at the workshop rather than using them themselves.

VII. DISCUSSION

1. Trends of HIV infection and STD prevention

As mentioned earlier, Amis d'Afrique conducted an investigation at their clinics on the HIV infection rate of pregnant women and outpatients who visited the clinics for sexually transmitted diseases. They also conducted the same investigation on pregnant women who were diagnosed as having candidiasis. The results revealed that the HIV infection rate is far more prevalent in urban areas than the officially announced rate and indicated that in no time at all HIV infection will be even more prevalent. Considering such social conditions as less restrictive sexuality norms, traditional attitudes of people towards having many children, prevalence of STDs and malaria, people with chronic malnutrition, and unsanitary conditions, it is estimated that people in R.C.A. are exposed to higher risks of HIV than that of people in developed countries. It is also inferred that the process from HIV infection to the onset of AIDS and then death may be shorter in R.C.A. than in developed countries.

The above facts lead us to the necessity of HIV/AIDS prevention and PWH/PWA care in due consideration of prevention and treatment of all STDs. Practically speaking, measures are needed to encourage women to cleanse their genitals (including the use of a bidet after sexual intercourse), to treat other STDs, and to encourage people to use condoms. Such measures may directly effect the prevention of various STDs including the HIV infection. Another effective measure will be first-hand instructions by using audio and visual means, including words and graphics. With such instruction, staff will emphasize to people the necessity to learn about safe sex in order to give birth to healthy babies.

2. Promoting industry and protecting women's rights

Individuals and the environment in R.C.A. appear to be in a disastrous situation, if we consider the

population explosion, food crisis, economic crisis, growing number of HIV infected people, deforestation, and so forth. However, people seem to maintain peaceful lives, in which they give birth naturally to their babies and stave off hunger with seasonal fruits taken from the earth. Therefore, when we as foreigners offer to aid them with health and medical treatment, it is necessary that we do not remain stuck in our own views. Otherwise, such aid will end up as merely temporary. To make aid more successful, it is essential that people themselves nourish their awareness of creating a society good for the health of their children. Thus, the country will be able to build a solid foundation to cope with HIV/AIDS.

What is necessary to achieve this goal is to guarantee at least a minimum lifestyle level and an income that truly corresponds to a person's work.

Particularly, this must also apply to women who must support their families under the traditions of polygamy and separate living. While they are asked to be the main wage earners, most of them have only limited education opportunities. In addition, it is still quite difficult to earn cash for living expenses in this country. These factors are contributing to so-called "casual prostitution" by many women.

Accordingly, industrial promotion by a wide range of foreign private enterprises, as well as development aid and technological cooperation, is required, in line with official aid to support stable incomes for women and further enforcement of vocational training for women.

3. Teaching younger generation how to prevent HIV/AIDS

The reasons why only a very few people realize that HIV can be transmitted from mother to child appear to derive from the following misunderstandings:

(1) A child whose parent is HIV positive is not infected.

(2) A person who has not experienced sexual intercourse can not be HIV positive.

Contrary to these views, Amis d'Afrique found that most of the newcomers registered on their AIDS patient list were teenage girls. This suggests a trend that even teenage girls who have not experienced sexual intercourse are now becoming exposed to sexual activities. Accordingly, in the education of HIV/AIDS prevention, it is urgent to: (i) stress to people of all ages that the health of parents is crucial to the health of their babies; and (ii) develop and execute education programs about sexuality and disease prevention for children beginning at the compulsory education level.

Moreover, in order to prevent and understand the trend of infection among men and women at the age of consent and to educate them, it is crucial to encourage them to: (i) undergo HIV testing with their partners; and (ii) use a condom when having sexual intercourse with people other than their own spouses, and clean the women's genitals after such intercourse. It is also important to develop and distribute smaller condoms for

school-age children as well as preventive equipment for women.

4. Notifying and caring for infected persons

Along with increases in the number of infected people, treating patients with emerged symptoms and supporting their lives has been gaining importance. However, it is still difficult to inform patients and their families about the disease, because of the belief that AIDS is a disease caused by devils. Therefore, prompt action is needed to create an environment where infected people are accepted by society, while at the same time alleviating attitudes toward finding someone to blame. At present, however, there is no place for notifying patients, no place for patients to live after learning of their illness, and no counseling offices or counselors. This means that there is no comprehensive care system including measures for protecting the rights of the individual.

Accordingly, it is urgent to draft and develop plans for the care of people who are found to be HIV positive. To achieve this goal, places and staff to be directly engaged in notifying and treating patients and families as well as in supporting their lives are basic requirements.

5. Eligible people for leading the programs of HIV/AIDS prevention and PWH/PWA care

Capable and eligible leaders are essential in the programs for HIV/AIDS prevention and PWH/PWA care in the epidemic regions. Medical experts are usually able to do little in such cases. Due to its characteristics, HIV/AIDS cannot be prevented solely by the conventional strategies planned mainly by medical experts. Only PWH/PWAs, from their first-hand experience with the physical symptoms and difficulties in dealing with society; can express the hardships related to this disease. Therefore, it is felt that they are capable of being the most powerful leaders in this regard. This has been supported by a survey conducted in Uganda in 1993. In this survey, subjects were asked with whom they wanted to consult if they were infected by HIV. The largest number of people chose "an HIV/AIDS patient with a good academic background." It is assumed that they would prefer a person with "good academic background" because they strongly believe that such person "has profound knowledge of the disease" and "will protect their privacy."

People appear to be annoyed with sensational news that merely agitates their fears. Instead, they are eager for the truth and the most reliable supporters. The roles of medical experts are: (1) to support PWH/PWA and their families; and (2) to provide necessary information and care for maintaining the health of non-infected people. In other words, experts are responsible for planning and must take an integrated and regional-based approach for HIV/AIDS prevention and PWH/PWA care in cooperation with PWH/PWAs.

VIII. RESULTS

1. The country's economy is in a chaotic situation. This makes it difficult to improve health and education.
2. The amount of medical equipment and experts is far from satisfactory. As a result, people have very little access to proper medical treatment.
3. Along with the soaring number of HIV infected people, there is an increasing number of newborn and teenage female AIDS patients.
4. The main infection route is considered to be heterosexual intercourse and transmission from mother to child. This appears to be caused by traditional factors (polygamy, separate living, and prolificacy), casual prostitution, a lack of understanding on mother-to-child transmission, lack of knowledge of the disease on the part of women, and prevalence of other STDs.
5. 394.7 people participate in each workshop for HIV/AIDS prevention on average and more than 10 questions are raised. This suggests that people have a strong interest in AIDS. Conversely, as low as only 45% have used condoms.
6. Many AIDS patients present a poor prognosis. The average term from the onset of the symptoms to death is a few days to one year.
7. It is difficult to inform patients and their families about contracting the disease, because people believe HIV/AIDS is a disease caused by devils.

The above facts led us to create several suggestions for HIV/AIDS prevention and PWH/PWA care, including the prevention and treatment of all kinds of STDs in R.C.A. The short-term goal is to establish a treatment system including: (i) HIV/AIDS prevention from school age; (ii) practical instruction for safe sex; (iii) counseling for PWH/PWAs. Long-term goals are: (iv) training and sending capable personnel with certain specialties relating to health, education and industry and with abilities to contribute to international cooperation; (v) facilitating cooperation with ODA in line with exchange and research supporting to promote cooperative work with people; and (vi) fund raising to function and improve these activities. Such goals should be improved by strengthened cooperation between different organizations as well as between different specialties.

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