

④ NIHとの協議資料

JICA MISSION TEAM-DMSc MEETING

February 17, 1995

National Institute of Health, DMS

Nonthaburi

Agenda

1. Welcome remarks

By Dr. Jumroon Mikhanorn

Director-General, Department of Medical Sciences

2. Achievement of the AIDS project cooperated with JICA

By Dr. Kazuichi Konyama, Leader of the Japanese Expert Team

By Dr. Chuirudee Jayavas, Senior expert, Department of Medical Sciences

3. Work plan 1995-1996

By JICA

4. Discussion

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4. Achievement
5. Work Plan FY 1995-96
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 - (1) New projects
 - Strengthening the infrastructure for AIDS vaccine research in Thailand, and
 - AIDS Training Center Project
 - (2) Propose for the 3-year extension of the JICA Project on Prevention and Control of AIDS, NIH (for Strengthening on laboratory diagnosis of HIV and opportunistic infections in AIDS patients)

MISSION TEAM

- | | |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 1. Dr. Akira Oya | Team Leader
Emeritus Member,
National Institute of Health |
| 2. Dr. Takashi Kurimura | Laboratory Diagnosis
Professor, Department of Viral Infections
Research Institute for Microbial Diseases
Osaka University |
| 3. Dr. Kenji Soda | Public Health
Professor, Department of Public Health
Yokohama City University, School of Medicine |
| 4. Mr. Seiji Utsumi | AIDS Education
Development Specialist on Education Technology JICA |
| 5. Mr. Hiroshi Ishii | Health Administration
Director, Office of International Cooperation
Ministry of Health and Welfare |
| 6. Ms. Akiko Tomita | Technical Cooperation
First Medical Cooperation Division
Medical Cooperation Department, JICA |
| 7. Mr. Hisashi Torii | Cooperation Planning
First Medical Cooperation Division
Medical Cooperation Department, JICA |

JAPANESE EXPERT TEAM

- | | |
|-------------------------|-------------|
| 1. Dr. Kazuichi Konyama | Leader |
| 2. Dr. Kikuko Miyamura | Expert |
| 3. Mr. Chiaki Makino | Coordinator |

THAI DELEGATES (DEPARTMENT OF MEDICAL SCIENCES)

1. Dr. Jumroon Mikhanorn Director-General
2. Dr. Chuinrudee Jayavasud Senior Expert
3. Dr. M.L. Ratanasuda Phan-Urai Senior Expert
4. Dr. Somposh Montian-Arsa Deputy Director-General
5. Dr. Vinita Boriraj Principal Medical Scientist
6. Dr. Pajjit Warachit Principal Medical Scientist
7. Ms. Suntharee Rojanasuphot Principal Medical Scientist
8. Dr. Mayura Kusum Principal Medical Scientist
9. Mr. Kul Boranin Director, Division of Health Laboratory
Quality Control
10. Mr. Prakong Phan-Urai Director, Medical Entomology Division
11. Dr. Jaroong Wongwanich Director, Biological Products Division
12. Mrs. Surang Saganwongse Director, Virus Research Institute
13. Dr. Jakkris Bhumisawasdi Director, Health Sciences Research Institute
14. Dr. Panadda Silva Director, Technical Coordinating Center
15. Mrs. Ponusa Wiriyakosol Chief, Office of the Secretary
16. Dr. Kruavon Balachandra Medical Scientist
17. Mrs. Siripan Wongwanich Medical Scientist
18. Mr. Wattana Auwanit Medical Scientist
19. Ms Natteewan Poonwan Medical Scientist
20. Mr. Suthon Vongsheree Medical Scientist

Welcome Remarks

Given by

Dr. Jumroon Mikhanorn, the Director-General

On the Visit of JICA Mission

February 17, 1995

At the National Institute of Health

Dr. Oya Akira, Distinguished Guests:

On behalf of the Department of Medical Sciences, I am pleased and honoured to welcome the JICA Mission headed by Dr. Oya Akira to the National Institute of Health of Thailand. The purpose of this visit is to survey the progress of the Project for Prevention and Control of AIDS, which is a 3-year cooperative project between JICA and the Ministry of Public Health implemented since 1993. The first two years of the Project is to be completed in the next few days. I could say that during the period, NIH could achieve a satisfactory progress. The laboratory diagnosis of HIV infection and opportunistic infections of AIDS has been established and developed. We now can characterize the HIV isolates and establish a specimen storage system. The national group training courses on laboratory diagnosis of opportunistic infections in AIDS patients were also successfully organized. In 1995, which is the last year of the Project, these activities will be resumed including the emphasis of quality assurance of HIV diagnostic reagents in Thailand. The year plan for fiscal year 1995 has been sent to JICA already, and I would like the members of this meeting discuss it in details.

Hereby, I would like to express my sincere thanks to the Japanese Government for its kind and supportive cooperation, and to JICA's experts as well as to all concerned parties for their endeavour devoted to this project. Thank you.

Prevention and Control of AIDS project" in NIH cooperative with JICA

The objectives are devided into three main parts

- 1) Strengthening in Laboratory diagnosis of HIV infection and opportunistic infections of AIDS.
- 2) Characterization of HIV isolates in Thailand.
- 3) Establishment of a specimen storage system.

1) Strengthening in Laboratory diagnosis of HIV infection and opportunistic infections of AIDS

Experts	Counterparts	Topics/Activities	Achievements
1) Assoc. Prof. Yuzuru Mikami	Clinical Pathology Division	Study on nocardiasis and opportunistic fungal diseases Identification of pathogenic Nocardia, Candida and Cryptococcus. Susceptibility test against Nocardia and Penicillium marneffei	Providing the service in identification and confirmation of pathogenic Nocardia.
2) Dr. Natsuo Tachikawa	Chinical Pathology Division	PCR technique of Pneumocystis carinii pneumonia	Research activities on Pneumocystis carinii pneumonia in HIV infected patients by using PCR technique.
3) Dr. Namiko Yoshihar	Virus Research Institute	Comparison of Urine and serum EIA for the detection of HIV-1 antibody	The method of Urine EIA for detection of HIV-1 Ab. can be used into a large scale of epidemiological study and the surveillance of HIV infection.

To emphasize on improvement or establishment of laboratory diagnosis in regional centers and provincial hospitals, The appropriated technology are transferred by training courses and publications, as follows

Training courses	Organizations	Achievements
<p>1) National group training course on laboratory diagnosis of opportunistic in AIDS patients. (2 times)</p>	<p>Clinical Pathology Division</p>	<p>- Upgrade the capability of laboratory diagnosis in regional centers and provincial hospitals</p>
<p>2) Workshop on diagnosis of HIV infection in children, under 18 months born from HIV- carrier-mothers by nested PCR.</p>	<p>Virus Research Institute</p>	<p>- Establishment of this method for HIV diagnosis of children in Regional Medical Sciences Centers.</p>

Publications	Organizations	Achievements	
1) Laboratory manual on diagnosis of anaerobic bacterial infections. 2) Manual book of identification guideline of pathogenic Nocordia written by Dr. Y. Mikami. 3) Video tape of identification guideline of pathogenic Nocordia by Ms . Nattewan Poonwan Dr. Yuzuru Mikomi	Clinical Pathology Division Clinical Pathology Division Clinical Pathology Division	1,000 copies 600 copies 150 copies	- Each copy will be distributed to regional centers and provincial hospitals

2) Characterization of HIV isolates in Thailand.

Expert	Counterparts	Topic / Activity	Achievements
Dr. Mitsuo Honda	Health Sciences Research Institute.	Characterization of HIV isolates in Thailand	<ul style="list-style-type: none"> - Eighteen strains of HIV were isolated from 44 of PBMCS (41%) - Proviral DNA of HIV, extracted from 29 PBMCS were nucleotide sequenced by automated DNA sequencer for determination of principle neutralizing domain (PND) of HIV-1 envelope region.

3) Establishment of a specimen system

3.1) A storage system. All specimens, virus strains and reference control sera, concerning to AIDS projects were stored in three freezers which were donated from JICA and also recorded in the system for further investigations

3.2) Quality Control system. The system to evaluate all diagnostic reagents for HIV-1 antibody detection in Thailand has been established in NIH since 1994. About 30 commercial reagent kits were submitted for this evaluation.

In FY 93-94, NIH were also obtained 15 kinds of equipment and 14 reagents from JICA for all of laboratory facilities and also two fellowships for study on laboratory diagnosis and pathology of HIV as more details in the enclosure.

**AIDS PROJECT COOPERATED WITH JICA
CLINICAL PATHOLOGY DIVISION**

Expert

- Name of Expert :** Assoc Prof. Dr. Yuzuru Mikami
- Field :** Study on Nocardiosis and Opportunistic Fungal Diseases
- Duration :** 1. April 4 - 30, 1994
2. December 6 - 24, 1994
- Counterparts :** Miss Jotika Boon - long
Miss Natteewan Poonwan
- Activities :**
1. Identification of pathogenic *Nocardia* by chemotaxonomic identification method and drug susceptibility pattern
 2. Methods for the staining of fungal elements in tissue or direct smear
 - Indirect fluorescent antibody staining
 - Fungiflora - Y direct staining
 3. Identification of pathogenic *Candida* and *Cryptococcus* by serological test
 4. Susceptibility test of antifungal agent against *Penicillium marneffeii*
- Achievement :** The acquired knowledge has been provided the service in identification and confirmation of pathogenic *Nocardia* in Mycology Reference Laboratory and has been applied to the research study on opportunistic fungal infections in AIDS patients. The appropriated technology has been transferred to the provincial

hospitals, the hospitals in Bangkok and the

Government Offices to be concerned. Technology transfer was conducted into 3 ways, as follow : -

1. Video tape of identification guideline of pathogenic *Nocardia*, 150 copies, created by Natteewan Poonwan and Yuzuru Mikami. Budget of video production, supported by JICA
2. Manual book of identification guideline of pathogenic *Nocardia*, 600 copies, written by Y. Mikami, Budget of printing, supported by JICA
3. Workshop on laboratory diagnosis of oppoirtnistic infections in AIDS patients, 2 workshops.
1st workshop was organized on June 6 - 10, 1994
2nd workshop will be organized on June 5 - 9, 1995
Budget of workshops, supported by JICA and DMS

Name of Expert: Dr. Tachikawa

Field: PCR of *Pneumocystis carinii* pneumonia (PCP)

Duration: February 14 - March 11, 1995

Counterparts: Miss Paradee Mameechai
Mr. Wattanapong Wutta
Miss Natteewan Poonwan
Mrs. Siripan Wongwanich

Achievement : The obtained knowledge has been applied in the research study of *Pneumocystis carinii* pneumonia by PCR technique. Right now, the study is in the stage of collecting samples from HIV infected patients.

List of Equipment

No.	Item	Specifications	Q'ty
1	Microscope	Labophot-2 CF E Plan Achromat 4x, 10x, 20x, 40x, 100x	1 unit -
2	Computer	LC III CPU 68030/25MH 8MB RAM VRAM 512KB Machintosh colour 14" monitor Apple keyboard and mouse	1 unit
3	Laser Printer	Laser Jet 4M	1 unit
4	Incubator	Model BE-500 Volume 108l Stainless steel interior & exterior	1 unit
5	Biological Safety Cabinet	SC 1200 Cytotoxic Safety Cabinet Class II Biosafety Cabinet Extremely Super Grade or 99,9998% Efficiency of HEPA filter "Super V Type" complete with Activated Charcoal Filter for Toxic Substance	1 unit
6	Microcentrifuge	- 24 Place Microcentrifuge (FD-82224) Low and High Speed - 12 Place Rotor (FD-81012)	1 unit 1 unit

Training Course

Course Title: National Group Training Course on Laboratory Diagnosis of Opportunistic Infections in AIDS Patients

Duration: 5 days from June 6-10, 1994

Objectives:

- To upgrade the capability of microbiological laboratories of the regional hospitals and provincial hospitals in Thailand
- To provide opportunities for effective communication among scientists from various parts of Thailand on issues relevant to opportunistic infections in AIDS

Participants: Fifteen scientists from regional hospitals and provincial hospitals

Budget: ฿207,000.- supported by JICA and
฿93,000.- supported by DMS

Summary:

From the returned questionnaires and the observation made by the Organizing Committee members, the participants were satisfied with this training course, they had paid much attention to every session. The participants had shared their diagnostic experiences as well as interexchanged the ideas. The lecturers had devoted themselves in transferring the technical know-how, which is very beneficial to the participants in enabling them to work more efficiently.

**Opportunistic fungi isolated from AIDS patients in
NIH Thailand , 1993-1994**

Organism	1993	1994
<i>Penicillium marneffe</i>	28 (50.9 %)	37 (7.7 %)
<i>Cryptococcus neoformans</i>	9 (16.4 %)	371 (77.3 %)
<i>Histoplasma capsulatum</i>	8 (14.5 %)	14 (2.9 %)
<i>Candida</i>	4 (7.3 %)	46 (9.6 %)
<i>Nocardia</i>	4 (7.3 %)	6 (1.2 %)
<i>Trichosporon beigeli</i>	1 (1.8 %)	1 (0.2 %)
<i>Torulopsis glabrata</i>	1 (1.8 %)	-
<i>Rhodotorula</i>	-	2 (0.4 %)
<i>Penicillium spp.</i>	-	2 (0.4 %)
<i>Aspergillus sp.</i>	-	1 (0.2 %)
Total	55 (100 %)	480 (100 %)

Total number of specimens tested in 1993 = 88

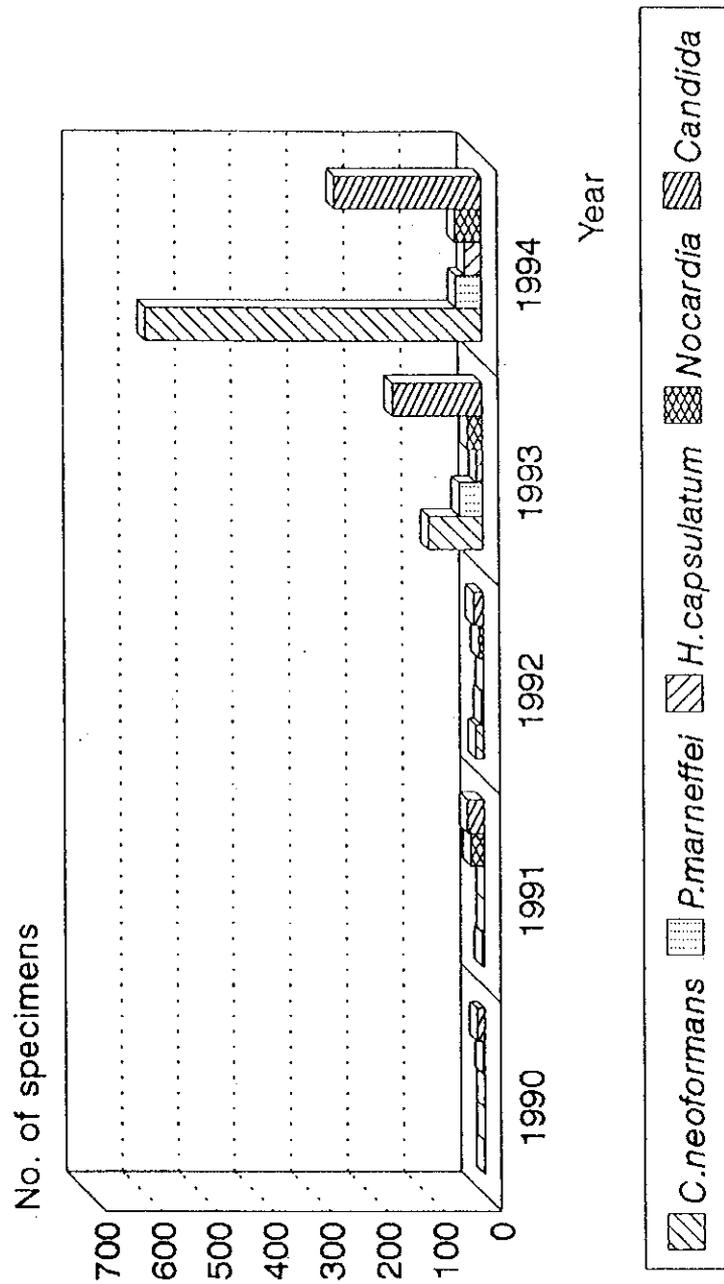
Total number of specimens tested in 1994 = 1535

Opportunistic fungi isolated from clinical specimens* including AIDS patients

Organisms	1990	1991	1992	1993	1994
<i>Cryptococcus neoformans</i>	1(1.75 %)	4(3.31 %)	14(9.79 %)	95(12.57 %)	595(23.18 %)
<i>Penicillium marneffeii</i>	0	0	4(2.79 %)	41(5.42 %)	45(1.75 %)
<i>Histoplasma capsulatum</i>	0	0	0	10(1.32 %)	29(1.13 %)
<i>Nocardia</i>	3(5.26 %)	23(19.01 %)	8(5.59 %)	26(3.44 %)	46(1.79 %)
<i>Candida</i>	13(22.8 %)	29(23.97 %)	17(11.89 %)	158(20.89 %)	259(10.09 %)
Total number of tested specimens	57	121	143	756	2567

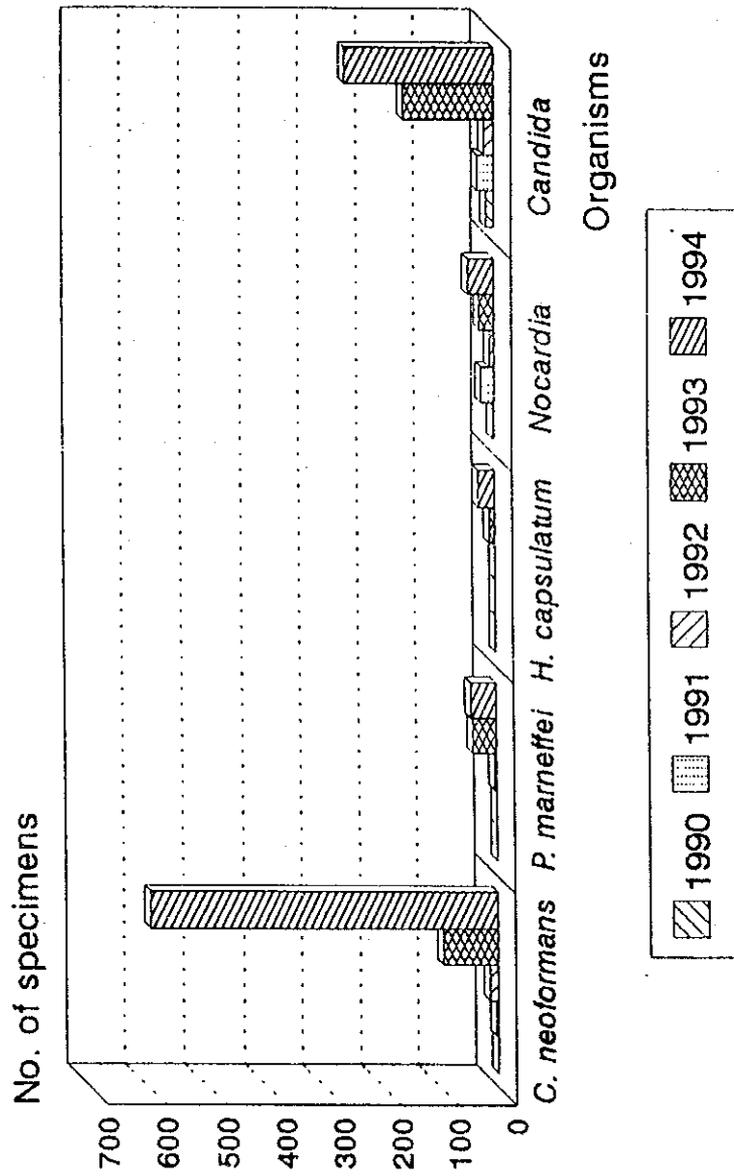
* specimens sent to NIH during 1990-1994

Fig. 1 Opportunistic fungi isolated from clinical specimens including those of AIDS patients, by year



Source : Division of Clinical Pathology

Fig. 2 Increasing trend of predominant opportunistic fungi 1990-1994



Source : Division of Clinical Pathology

VIRUS RESEARCH INSTITUTE

Expert

Name of Expert: Dr. Namiko Yoshihara

Field: Laboratory Diagnosis of HIV Infection

Duration: December 12-23, 1994

Counterpart: Mrs. Nuanjun Ruchusatsawat

Activity: Comparison of Urine and Serum EIA for the Detection of HIV-1 Antibody

Achievement: From a total of 1,198 IVDUS, 420 seropositive cases, 401 cases were urine-EIA positive (19 cases were urine-EIA false negative) and 778 seronegative cases, 706 cases were urine-EIA negative (72 cases were urine-EIA false positive). Comparatively, urine-EIA yield the following percentage of sensitivity, specificity, false positive, false negative, predictive positive value, and predictive negative value: 95.48, 90.75, 9.25, 4.52, 84.78, and 97.38 respectively.

Urine specimen collection is easy to perform by a non-invasive procedure. Since needle is not required, the use of urine specimen significantly reduces the accidental exposure to blood-born pathogens caused from needle sticks. Preliminary assay results demonstrate high sensitivity and specificity for the detection of HIV-1 antibody by urine-EIA. A HIV-1 urine-EIA facilitates the large scale of epidemiological study and the surveillance of HIV-1 infection.

List of Equipment

No.	Item	Specifications	Q'ty
1	DNA Thermo I Cycler	Model 480 with Epson Printer LX-800 included a serial interface card and RS 232-C	1 unit
2	Electrophoresis (HYBAID BIO-RAD)	Submarine Electrophoresis consists Electro-4-system Power pac 300 power supply	1 unit
3	Water Bath (MIMIERT)	W 350 T Ca. 19L, Temperature range 25-100°C Stainless body	1 unit
4	UV-Transilluminator (SPECTRONIC)	Model TVC 312 A with UV-Transilluminator Model Ds-34 Polaroid Camera Model SF-25 Red filter Model CR-1314 Photodoc Hood	1 unit
5	Microcentrifuge (HERMLE)	Z 230 MA Max speed 12,000 rpm. Continuous & count down timer Rotors proper for 0.5 ml and 1.5 ml tube	1 unit 2 sets
6	Micro-wave oven (NATIONAL)	NN-5652 700 W, ca. 1.5 L Dimension 20x20x20 cm	1 unit
7	Micropipet (GILSON)	Pipetman Model P 20 Model P 100 Model P 200 Model P 1000	1 unit 2 each 3 each 4 each 1 unit

HEALTH SCIENCES RESEARCH INSTITUTE

Expert

Name of Expert : Dr. Mitsuo Honda

Duration: July 19 - August 29, and November 13 - 29, 1994

Counterpart : Mr. Wattana U - wanich

Activity : Characterization of HIV isolates in Thailand

Achievements :

1. Characterization of HIV isolates in Thailand.

From November 1994 to December 1995, about 71 blood specimens from asymptomatic HIV infected individuals were collected from Provincial Hospital (Nan), Regional Medical Science Centers including Ubonratchathanee, Khonkaen, Nakornratchaseema and Children Hospital in Bangkok. All specimens were processed for collecting peripheral blood mononuclear cells (PBMCs) and plasmas and stored at - 85 °C. Forty four samples of PBMCs have been cultivated for HIV isolation. By cocultivation technique, 18 virus strains were isolated and stored as virus stock for further biological study.

DNA was extracted from 29 PBMCs for DNA sequence analysis. The principle neutralizing domain (PND) of HIV - 1 envelope region was amplified by nested polymerase chain reaction (PCR) technique and were directly nucleotide sequenced by automated DNA sequencer (10 samples were performed at NIH, Japan). All nucleotide sequences will be analyzed by phylogenetic tree analysis.

2. Establishment of specimen storage system for a quality control system and evaluating HIV diagnostic kits in Thailand.

There are 2 freezers - 75 °C and 1 freezer - 120 °C donated by JICA in 1994 for storing all specimens, virus strains and reference quality control sera. The description of all specimens will be recorded for further investigation.

At the end of 1994, Department of Medical Sciences has started to evaluate all diagnostic reagents for HIV - 1 antibody detection in Thailand. A panel of 450 sera of HIV

asymptomatic infected individuals, AIDS and ARC patients has been prepared for determining the sensitivity and specificity of each diagnostic kit. About 30 commercial reagent kits are submitted for this evaluation.

All samples for this HIV research study will be stored in this storage system to stabilize the biologic and immunologic properties of the samples.

List of equipment

Item no.	Equipment	Amount	Cost (Baht)	Year of delivery
1.	Automated DNA sequencer	1	4,260,000	1994
2.	Fluorescence microscope	2	632,000	1994
3.	Deep freezer - 85C	2	508,250	1994
4.	Deep freezer - 120C	1	565,000	1995
5.	RI survey meter	1	110,000	1994
6.	Luminometer	1	300,000	1994
7.	Slide maker	1	300,000	1994
8.	Biosafety refrigerated centrifuge	1	269,640	1994

List of reagents and supplies

Item no.	Reagent and supplies	Amount
1.	Fetal Bovine serum, 500 ml	4 bottles
2.	Ficoll - Paque, 500 ml	5 bottles
3.	L - glutamine, 100 g	5 bottles
4.	Interleukin - 2 10,000 unit	1 vial
5.	PCR reagent kit	5 kits
6.	Micropipette	5 pcs.
7.	Membrane filter	200 pcs.
8.	Agarose, 100 g	2 bottles
9.	Disposable plastic pipette	4000 pcs.
10.	Assist tube 1.5 ml	13 boxes
11.	HIV p24 antigen ELISA test kit, 100 test/kit	1,920 tests
12.	ELISA HIV antibody test kit 100 test/kit	20 kits
13.	Western blot HIV - 1, 36 tests/kit	20 kits
14.	Reagent for DNA synthesis	3 kits

Nest step plan

1. Phenotypic characteristic of Thai HIV primary isolates as well as HIV neutralizing antibody in the plasma will be investigated.
2. Peptide - based ELISA will be applied for serotyping of HIV - 1 in Thai sera stored at the Serum Bank of NIH to investigated retrospectively the prevalence of HIV - 1 subtypes in Thailand.

3. Some genetic and biologic markers of HIV - 1 in asymptomatic and symptomatic HIV - infected patients will be observed.

4. Computerize system will be applied to the management of serum bank and virus storage.

HEALTH LABORATORY QUALITY CONTROL DIVISION

FELLOWSHIP

Name: Mr. Viroj Dejcharoen
Course: Laboratory Diagnosis and Pathological Studies
Duration: From February 8, 1994 through January 24, 1995

National Institute of Health

Work plan FY 1995 - 1996

1. Establishing and improving laboratory diagnosis of HIV infection and opportunistic infections of AIDS for purpose of monitoring opportunistic infection of AIDS in Thailand. This activity emphasizes on improvement of laboratory diagnosis of HIV infection and AIDS related opportunistic infections in Thailand by establishing a network of reference activities in HIV, regional centers and hospital.
2. Characterizing HIV isolates in Thailand for their biological and genetic and immunological properties and their relation to the pathogenesis of diseases.
3. Establishing a specimen storage system as quality control system and evaluation the various diagnostic kits and reagents for HIV infection in Thailand.
4. Dissemination of above - mentioned technology by establishment National group training course on laboratory diagnosis of opportunistic infections in AIDS patients.

future plan FY 1997 - 2000

1. Strengthening infrastructure for AIDS vaccine research in Thailand.
2. AIDS training center project.
3. The extension of JICA project on AIDS prevention and control of AIDS in the field of :
 - 3.1 Improve the isolation and identification methods for causative fungi (Cryptococcus, Norcadia) parasite (Toxoplasma) and bacterial diarrhoea (Campylobacter and Clostridium difficile).
 - 3.2 Strengthening the research activities necessary to treatment and control of opportunistic infections in AIDS patients by introduce recent advance technology with special reference to immunology, microbial genetics and biochemistry.

A draft proposal on anti - HIV project

Strengthening the infrastructure for AIDS vaccine research in
Thailand

Thai side : NIH, THAILAND,
Department of Medical Sciences, Ministry of Public Health,
THAILAND

Japanese side : Japan International Cooperation Agency
(JICA) & NIH, JAPAN, Ministry of Foreign Affairs, Japan.

Introduction

Approximately 10 million people are infected with the human immunodeficiency virus type 1 (HIV - 1), and as estimated by WHO, at least a total of 400 million people is to be infected with the virus at the end of this century, resulting in devastating social, economic and health consequences. The HIV epidemic is getting worse worldwide. In Thailand, HIV is now epidemic and the number of patients with AIDS is gradually increasing, around 600,000 persons of HIV carriers and over 10,000 cases of AIDS patients were reported. Furthermore, approximately 2% of women at childbearing age are infected with HIV - 1 and consequently cause newborns with HIV infection. Therefore, the development of interventions to reduce HIV infections is urgently needed and will be of great potential benefit for Thailand and worldwide.

The development of an AIDS vaccine has been set up in high priority in view of the massive toll of sickness and death, largely due to the refractory of treatment or epidemiological control. However, the protective efficacy trials of various developed HIV vaccines are still investigated, it needs more intensive studies of pathogenesis of HIV to seek and find out the clues needed for an effective against AIDS. NIH, Thailand is the major responsible organization in the program on development of new preventives and therapeutics to HIV. Although the project 'Prevention and Control of AIDS in Thailand' supported by JICA has been started since 1990, NIH was responsible only in one part in this main project, of which its activity is mostly for laboratory diagnosis of HIV and opportunistic infections. Therefore, other problems are still confronted and have to be solved due to AIDS program. Thailand has been chosen as one of the countries for HIV vaccine efficacy trial by WHO., Thus, all preparations should be set up, for instances staff training, preparation of clinical settings for administrating vaccines as well as quality control test for safety and immunogenicity of vaccines. Moreover, cohort study and basic research of HIV such as characterization of HIV prevalent in this country should be done in parallel with research and development of the efficiency

vaccine in Thailand. Therefore, it is needed to strengthen the infrastructure and staff for AIDS vaccine research in NIH by an effectively concentrated and co - operative program through JICA.

Project objectives

The purpose of the cooperative anti - HIV project between Thailand and Japan includes basic HIV research, development of effective candidate vaccines and also setting up the evaluation system of the efficacy and safety test of vaccine in preclinical and clinical trials.

Project output

This AIDS prevention project is expected to output the following results ;

- a) Knowing the pattern of HIV infection and HIV types that are epidemic in Thailand which can be applied into epidemiological control.
- b) Development of effective candidate vaccines that are derived from the principle neutralizing determinants (PNDs) of HIV's prevalence in Thailand.
- c) Having model organization to deal with quality control test and vaccine efficacy trials relative to the cohort study.
- d) Social benefit by prevention or reduction of HIV infection and progression of the HIV infected individuals to symptomatic stages.

Study design

The project for anti - HIV in Thailand will be basically conducted in NIH, Department of Medical Sciences, Ministry of Public Health, Thailand, by the cooperation of provincial administrations (including Payao Provincial Administration Office) and various hospitals (including Provincial General Hospitals and University Hospitals). The project, sponsored by the Royal Thai Ministry of Public Health (MOPH) and JICA, will cover three categories, as showing in table 1 . In brief, it includes:

- 1) Basic HIV research
 - 1.1 Isolation of HIV
 - 1.2 Characterization of HIV
 - 1.2.1 Biological study

1.2.2 Immunological study

1.2.3 Genetic study

1.3 Immunopathogenesis (Cohort study)

2) Development of HIV vaccines

2.1 Research approach to recombinant subunit or peptide synthetic vaccines

2.2 Quality control and efficacy test of HIV vaccines

3) Vaccine efficacy trials

To pursue the project effectively, the following four divisions in NIH and other co-operating laboratories will take responsibility in the project ;

1. Virus Research Institute
2. Health Science Research Institute
3. Division of Biological Products
4. Division of Clinical Pathology

NIH, Thailand, will have a reference laboratory for basic HIV research and field studies. Characterization of the viruses and individuals with HIV will be the initial and continuous work for Health Science Research Institute and Virus Research Institute. The appropriate cell fraction or HIV isolates are expected to be analyzed for biological, genetic, serological and immunological studies. From the above mentioned, principle neutralizing determinants (PNDs) of HIV's prevalence will be obtained and developed as a candidate vaccine in Thailand.

For vaccine development, effective vaccine will be the target of this project. Antigenic determinants of HIV, expression vector system, synthetic peptide analysis, immunogen in vaccine formulate and immunogenicity of vaccines will be studied to get high immunopotential and protective efficacy to HIV. Laboratory for safety control and efficacy test will be established for preclinical and clinical trials of vaccine. Animal model system including monkeys will be set up for HIV challenged experiments in NIH.

Specimens obtained and data collected in this project will be stored for retrospective studies or as references. Priority of these data obtained in this project belongs to NIH, DMSc, Ministry of Public Health, Thailand and NIH, Japan represented by JICA. These data can be used under the permission of both agencies.

Fellowship and training opportunities offered by this project and the dispatch of experts

One of the strategies to make this project markedly effective is the training and the education for laboratory staff and related physicians. Training sessions including workshops and seminars will be held at NIH campus organized by the Department of Medical Sciences, Ministry of Public Health, Thailand. These trainings will also be for HIV staff of the proper Regional Hospitals and Regional Medical Science Centers.

Fellowships offered by this AIDS project covers basically 3 - 4 persons a year. These fellows must be laboratory staff or related physicians recommended and nominated by the Royal Thai Government . Japanese experts will also be dispatched each year to Thailand for consultation and doing research in each special topics / activities Appropriate facilities will be supplied to NIH and other appropriate place to proceed the activities of the project by negotiating with Thai authorities and JICA.

Table 1. Planning of the Project

"Strengthening the infrastructure for AIDS vaccine research in Thailand"

Topics / Activities	1995	1996	1997	1998	1999	2000
1. Isolation of virus	↑↑↑↑↑↑					
2. Characterization of HIV	↑↑↑↑↑↑					
2.1 Biological studies [Phenotypic studies, etc.]	↑↑↑↑↑↑					
2.2 Immunological studies [NT, CTL, NK, mucosal activities, HIV specific Ab, peptide - base analysis, etc.]	↑↑↑↑↑↑					
2.3 Genetic studies [subtype, sequencing]	↑↑↑↑↑↑					
3. Immunopathogenesis [Cohort studies]	↑↑↑↑↑↑					
4. HIV vaccine development	↑↑↑↑↑↑					
4.1 Research approach to recombinant or peptide synthetic vaccine [Gene cloning, construction of vectors, gene expression,] peptide analysis, vaccine formulate studies, etc.]	↑↑↑↑↑↑					
4.2 Strengthening the quality control laboratory of HIV vaccine efficacy, chemical and physical control]	↑↑↑↑↑↑					
5. Vaccine trials.	↑↑↑↑↑↑					

" AIDS Training Center Project "

Background

National Institute of Health (Thailand) serving as a central institute for research and reference laboratories was established with the grant-in-aid from the Japanese Government. NIH was officially inaugurated in April, 1987 and has been under the administration of Department of Medical Sciences. The Japanese Government also gave assistance in technical co-operation for the Research Promotion Project in NIH which had been started from 1986 through 1994. The obtained basic and advanced technical know-how have been applied in many promising research projects and many training courses which were organized at NIH with participants from various developing countries. NIH is ready for starting up the training courses both national and international levels.

Rationale and Justification

In the past ten years, rapid changes in Thai economics and socio-politics were very distinct. The health problem has also changed quickly. Whereas the infectious diseases in the past e.g. poliomyelitis, diphtheria, pertussis, and tetanus have been sharply declined, the current infectious diseases emphasizing HIV/AIDS become rapid epidemics and more complicated. The Government of Thailand has been keen in this respect and established in June 1991 a system for taking measures against the spread of AIDS, with the National AIDS Committee headed by the prime minister as the chairman. JICA and the Public Health Ministry of Thailand made for technical cooperation in strengthening the system of testing, analysis and research related to AIDS and in AIDS education during 1994-1997 in terms of Project for Prevention and Control on AIDS in Thailand. The developed technologies and method including educational materials on AIDS will be transferred and distributed to health personnels, and general public particularly for the high-risk groups. It is therefore, obvious that the training courses of developed technologies and methods are important for prevention and control on AIDS in Thailand. The scope of the Project for Prevention and Control on AIDS in Thailand gave impetus to the idea of training center including dormitory. Because of prohibition of the Bureau of the Budget, office of the Prime Minister, Department of Medical Sciences requestes to JICA assistance for training center on AIDS in Thailand. The training center will contribute significantly to human resource development through its neighbouring countries. AIDS training center Project is in accordance to Health Policy of Thailand Government for technical cooperation with neighboring countries.

Objectives:

1. To establish AIDS Training Center serving as the national and international training institution.
2. To conduct various HIV/AIDS and related laboratory and research training courses.

Duration of the Project

From the year 1996 to 1998

Project sites

The National Institute of Health, Department of Medical Sciences (NIH, DMSc), Nonthaburi.

Collaborative Organization

1. NIH, Department of Medical Sciences.
2. AIDS division and Bamrajnaradura Hospital, Department of Communicable Diseases Control.
3. Health Education division and Epidemiology division, Office of the Permanent Secretary of Ministry of Public Health
4. Concerning Universities.

Project Strategy and Activities

1. To be a focal institution of technological cooperation among developing countries (TCDC) for prevention and control of AIDS in this region.
2. To be a training center for:
 - 2.1 Transfer technology through the national health referral system.
 - 2.2 Exchange of information and technology through scientific conventions among ASEAN countries.
3. Department of Medical Sciences supports for the maintenance of the training center and the administration (personnels, budgets, equipments, etc...)

layout**1st floor**

Conference room 50 persons	Training room 10-20 persons
	Training room 10-20 persons
	Administrative office

2nd floor

Laboratory 20-30 persons	Biosafety laboratory level 3
	Biosafety laboratory level 3

3rd floor

Restuarant	Dormitory 30 bed rooms
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Proposal for the extension of the JICA Project on Prevention and Control of AIDS

(Strengthening on laboratory diagnosis of opportunistic infections in AIDS patients)

Justification : Opportunistic infections (fungi, protozoa and bacteria) in AIDS patients are commonly found and one of the major cause of death. The accurate and reliable report of opportunistic infections from microbiological laboratory is one of the factors to get success in treatment and control of AIDS. Updating knowledge and improving skills in cultivation, isolation, identification and using recently advance techniques for examination of causative agents of opportunistic infections appears to be warranted. Though strengthening on laboratory diagnosis of opportunistic infections in AIDS patients under the JICA Project on Prevention and Control of AIDS has been implemented in 1993-95. However, the research activity concerning opportunistic infections in AIDS patients has not been completely carried out yet. Therefore, the project still be needed further support for the completion.

Period: 1996-1998 (3 years).

Purpose:

1. To strengthening the research activities necessary to treatment and control of opportunistic infections in AIDS patients by introducing recent advance technology with special reference to immunology, microbial genetics and biochemistry.
2. To improve the isolation and identification methods for causative fungi (*Cryptococcus*, *Nocardia*), parasite (*Toxoplasma*) and bacteria of diarrhoea (*Campylobacter* and *Clostridium difficile*).

Requirements:

Expert in the following fields:

1. Identification and detection of *Toxoplasma gondii* by immunological method and PCR technique.
2. Rapid diagnosis of *Penicilliosis marneffeii* and cryptococcosis by immunological method.
3. Advance techniques for identification of *Nocardia*.
4. DNA typing of *Clostridium difficile* isolated from AIDS by Pulse-Field Gel Electrophoresis technique.

Thai and Japanese scientists will be jointly conduct research work in the subjects as mention above.

Fellowship in the following field:

1. Early diagnosis and epidemiological study of Cryptococcosis and other opportunistic fungal infections in AIDS patients base on molecular biology.
2. Molecular methods for identification of *Nocardia*.
3. Culture and purification of *Toxoplasma gondii* antigen.
4. Standard and PCR techniques for diagnosis of *Campylobacter* and *Helicobacter*.

(1) Program for Upgrading Laboratory Facilities and Improving its Technology for Diagnosis of HIV/AIDS in Phayao Provincial Hospital.

Objective

1. To supply necessary equipment and technology for diagnosis of HIV/AIDS.
2. To computerize laboratory information in Phayao Provincial Hospital
3. To maintain quality of laboratory technology.

Methodology

1. Development of program for laboratory information in Phayao Provincial Hospital
2. Provide computer and attachments
3. Supply necessary laboratory equipment
4. Seminar to improve laboratory technology
5. Monitoring and evaluation of quality of laboratory technology
6. Evaluation
7. Reporting

(2) Program for Promoting Universal Precautions against HIV/AIDS in Medical Facilities.

Objective

1. To study awareness of hospital staff of selected level regarding Universal Precautions against HIV/AIDS.
2. On the reflection of 1) and other relevant studies different kinds of media are to be developed.
3. To convene teaching courses for promoting Universal Precautions for HIV/AIDS could be exercised among the selected groups of hospital staff.
4. To measure the immediate and intermediate impacts after the completion of the programs.

Methodology

1. Preparation
2. Program development
3. Pretest and analysis
4. Media development
5. Dissemination
6. Refresher courses
7. Post-test and analysis
8. Evaluation
9. Reporting

(3) Program for Developing Community Based Health Information System.

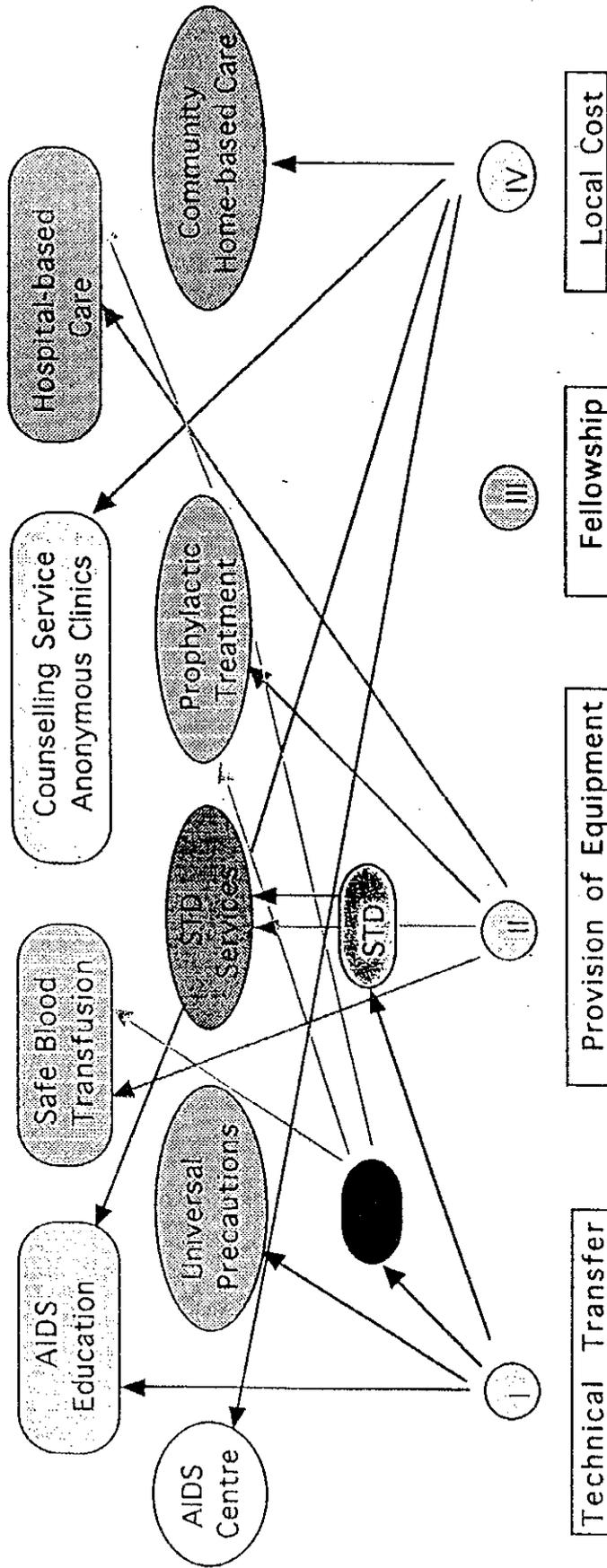
Objective

1. To develop community based health information system.
2. To build up intelligence network for community based health information between Health Center, District Health Office, and Phayao Provincial Health Office.
3. To make a report and a local health plan based on community health situation.

Methodology

1. Development of program for community based information
2. Providing equipment/supplies
3. Build up intelligence network
4. Training for handling computer
5. Information input and process
6. Evaluation
7. Reporting

PHAYAO PILOT PROJECT MATRIX (JICA CONTRIBUTION)



- Technical Transfer**
- Despatch of Experts
Public Health/Media Development
 - Training
 - Joint study
 - Assisting NIH staff in developing & transferring a package of Laboratory Diagnosis Technology
 - Developing appropriate information system

- Provision of Equipment**
- Up-grading Laboratory infrastructure
 - Information system

- Local Cost**
- Provision of small equipment & materials
 - Training
 - Seminar/workshop
 - Setting up coordination office of counsellor's network
 - Producing manuals

National AIDS Prevention and Control Committee

Executive Board for AIDS Prevention and Control Program

Committee on Mass
Communication for
AIDS Prevention

Committee on
Medical Service
and Counseling

Committee on
Education to Prevent
and Control AIDS

Committee on
Research and
Evaluation

Committee on Social
Campaign for
Vulnerable Groups

Committee on Living
with AIDS and
Legal Measure

NIH (DMSc) policy on AIDS prevention and control

1. Quality control laboratory diagnosis of HIV and reagents. Strengthening provincial hospital laboratories for diagnosis of AIDS and opportunistic infection.
2. Research to obtain scientific data for treatment, prevention and control AIDS.
eg : - Sentenial surveillance of HIV infected patients.
 - Search etiologic agents of opportunistic infections.
 - Study HIV transmitted from mother to children.
 - Virus isolation and characterization HIV, CMV, EBV, HSV, HHV - 6
3. Strengthening infrastructure to develop vaccine local strain in Thailand.
4. National AIDS training center.

⑤ 活動実績（1993／94年度及び1994／95年度）

REPORT
on
ACHIEVEMENTS
in
F. Y. '93/94 & F. Y. '94/95

JICA PROJECT for PREVENTION & CONTROL of AIDS

February, 1995

**REPORT
on
ACHIEVEMENTS
in
F.Y. '93/94 & F.Y. '94/95**

(Dispatch of Expert, Fellowship, Provision of Equipment, Funding Support)

Achievement in F.Y. 1993/94

1. Project Management	
A. AIDS Division 1
2. Medical Collaboration	
A. National Institute of Health 2
3. AIDS Education	
A. Health Education Division 6

Achievement in F.Y. 1994/95

1. Project Management/Public Health	
A. AIDS Division 10
2. Medical Collaboration	
A. National Institute of Health 11
B. Children's Hospital 14
3. AIDS Education	
A. Health Education Division 16
B. AIDS Division 16

JICA PROJECT FOR PREVENTION & CONTROL OF AIDS

February, 1995

F.Y. 93/94

Achievement in F. Y., 93/94

1. Project Management

A. AIDS Division

a) Despatch of Expert

* Long term Expert

No.	Name	Term	Field/Position	Thai C/P	Remarks
1	Mr. Chiaki Makino	01 July, 93 - 30 June, 95	Coordinator		

*Short-term Expert

No.	Name	Term	Field/Position	Thai C/P	Remarks
1	Dr. Kazuichi Kon-yama	26 July-22 Aug, '93 10-29 Jan, '94 04-30 April 94	Project Leader		

c) Provision of Equipment

No.	Item	Manufacturer	Specification	Q'ty	U/Price	Price	Place installed
1	Micro Bus	Toyota	HI-ACE Long Wheelbase, Diesel Engine 2,446cc. 5 speed, 3 Row Reclining Seats, Air conditioner film, Radio & Cassette tape, Radial Tyre	1 unit	624,000.00	624,000.00	Aids Division
	Total					624,000.00	

2. Medical Collaboration

A. National Institute of Health

a) Despatch of Expert

*Short-term Expert

No.	Name	Term	Field/Position	Thai C/P	Remarks
1	Dr. Mitsuo HONDA	11-16 Oct. '93	Laboratory Diagnosis of HIV Infection	Dr. Jakkris Mr. Wattana Auwanich	
2	Dr. Natsuo Tachikawa	14 Feb. - 12 Mar, '94	Laboratory Diagnosis of Opportunistic Infection (PCR)	Ms. Siripan Wongwanich	
3	Dr. Yuzuru Mikamin	04-30 April, '94	Medical Mycology including Pathogenic Nocardia	Ms. Natteewan Punwan	

b) Fellowship

No.	Name	Term	Field	Japanese C/P	Remarks
1	Ms. Amornip Muangrom	05 Jan.-23 Dec., '94	Laboratory diagnosis & pathological Studies	Dr. M. HONDA	
2	Mr. Viroj Detcharven	08 Feb., '94-24 Jan., '95	Laboratory diagnosis & pathological Studies	Dr. M. HONDA Dr. N. YOSHIHARA	

c) Provision of Equipment

No.	Item	Manufacturer	Specification	Q'tity	U/Price	Price (B)	Place installed
1	Microscope	Nikon	Labophot-2 CF E Plan Achromat 4x, 10x, 20x, 40 x, 100x	1 unit	135,000.00	135,000.00	
2	Microscope	Nikon	Microscope (NIKON) Labophot-2 consisting Y2 Basic unit Trinocular tube F2 Eyepieces CFW N 10x EPI-Fluorescence attachment model EF-D consisting of; EPI-FL attachment	2 units 2 sets 2 units	316,000.00	632,000.00	

3	DNA Sequencer	Applied Biosystem	Model: 373A-01 DNA Sequencer/Apple Macintosh II Collection and Analysis Software, Installation Reagent Kit Comb kit and Glass Plates	1 unit	4,260,000.00	4,260,000.00
4	Ready Reaction Dye Terminator Sequencing Kit	Prism ABI	401384	1 unit	22,300.00	22,300.00
5	Computer	Apple Macintosh	LC III CPU 68030/25 MH 8 MB RAM VRAM 512 BK Macintosh colour 14" monitor Apple keyboard Apple mouse	1 unit	58,200.00	58,200.00
6	Laser Printer	Hewlett Packard	Laser Jet 4 M	1 unit	77,300.00	77,300.00
7	Incubator	Memmert	Model BE 500 Volume 108 L Stainless steel interior & exterior	1 unit	43,400.00	43,400.00
8	DNA Thermal Cycler	Perkin Elmer	Submarine Electrophoresis consists Electro-4-systems Power pac 300 power supply	1 unit	385,000.00	385,000.00
9	Electrophoresis	Hybaid Bio-rad	Submarine Electrophoresis consists Electro-4-system Power pac 300 power supply	1 unit	42,000.00	42,000.00
10	Water Bath	Memmert	W 350 T Ca. 19L, temperature range 25-100c Stainless body	1 unit	15,900.00	15,900.00

11	UV-Transilluminator	Spectronic	312 A	1 unit	86,700.00	86,700.00
			With Model UVT-150 UV-Transmitting filter Model DS-34 Polaroid Camera Model SF-25 Red filter Model CH-1314 Photodoc Hood	1		
12	Microcentrifuge	Hermle	Z 230 MA Max speed 12,000 rpm. Continuous & count down timer Rotors proper for 0.5 ml and 1.5 ml tube	1 unit	86,700.00	86,700.00
13	Micro-wave Oven	National	NN-5652 700 w, ca. 1.5 L Dimension 20x20x20 cm	1 unit	11,700.00	11,700.00
14	Micropipet	Gilson	Pipetman Model P 20 Model P 100 Model P 200 Model P 1000	1 unit 2 each 3 each 4 each 1	8,900.00 8,900.00 8,900.00 8,900.00 8,900.00	8,900.00 17,800.00 26,700.00 35,600.00 8,900.00
15	Deep Freezer	Revco	ULT-1420-7V, -120 C, 13.7 Cu.Ft.	1	565,000.00	565,000.00
16	Deep Freezer	Forma	-85 C, 13.7 Cu.Ft.	2	400,000.00	800,000.00
17	Biosafety Refrigerated	ALC	4327R	1	269,640.00	269,640.00
18	Slide Maker (Film Printer)	Polaroid	CI-5000S Digital Palette Color Film Printer	1	321,000.00	321,000.00

19	Luminometer	Gen Probe	Reader 50	1	267,500.00	267,500.00
20	Biosafety Cabinet,	Astec	SC-1200, Class II	1	481,500.00	481,500.00
21	Microcentrifuge	Fotodyne	Bench-top Type ,24-place Rotor 8-2224	1	90,200.00	90,200.00
22	Freight, Insurance, Customs clearance and Inland transportation				130,500.00	130,500.00
	Total					8,879,440.00

2. AIDS Education

A. Health Education Division

a) Despatch of Experts

* Long-term Expert

No.	Name	Term	Field	Thai C/P	Remarks
1	Mr. Akira Hirai	01 July '93-30 June '95	IEC		

* Short-term Expert

No.	Name	Term	Field	Thai C/P	Remarks
1	Ms. Yoshimi Nishino	24 Sept. '93-19 Mar. '94	IEC Research	Mrs. Chirapon	
2	Mr. Kazuaki Sumida	10 Jan.-10 Apr. '94	Video Engineering	Mr. Witrai	
3	Prof. Dr. Hinomitsu Muta	10-25 Feb. '94	Media Environmental Survey		

b) Fellowship

No.	Name	Term	Field	Japanese C/P	Remarks
1	Mr. Chanyth Phromprapat	09 Sept. '93-25 Feb., '94	Video Production		

c) Provision of Equipment

No.	Item	Manufacturer	Specification	Qty	U/Price	Price	Place installed
1	4 Wheel Drive Car	Mitsubishi	Pajero 4WD, 2.8 Turbo Diesel Intercooler with Dual Air-on, Radio cassette, Film Undercoated	1 unit	886,000.00	886,000.00	
2	Betacam SP VTR-in-Camera 3-Chip PAL W/ACC	Sony	BVW-400AP	2 sets	1,137,880.00	2,275,760.00	
3	Battery Case For NP-1BX2	Sony	DC-520	2 pcs	7,000.00	14,000.00	
4	Motorized Zoom Lens for 1 8.5 mm x 14	Sony	J14AX85B	2 sets	166,900.00	333,800.00	
5	UV Filter for 2 Canon	Sony	UV/82	2 pcs.	2,600.00	5,200.00	
6	Close-Up (Proxer) Filter for 2 800 mm canon	Sony	82 CL-UP800 H	1 pc	8,200.00	8,200.00	
7	Close-Up (Proxer) Filter for 2 1300 mm canon	Sony	82 CL-UP1300 H	1 pc	8,200.00	8,200.00	
8	Rechargeable Battery Pack Nicd	Sony	NP-1B	40 pcs	2,060.00	82,400.00	
9	Battery Charger for 7 W/Refresh Function	Sony	BC-1WDCE	4 sets	15,900.00	63,600.00	
10	AC Adaptor for 1	Sony	AC-550CE	2 sets	20,600.00	41,200.00	
11	VTR Play Back Adaptor for 1	Sony	VA-500 P	1 set	64,400.00	64,400.00	
12	Portable 9-inch color monitor 4 standards W/ACC	Sony	PVM-9044 QM	2 sets	59,800.00	119,600.00	
13	Monitor egn kit	Sony	VF-505	2 sets	2,600.00	5,200.00	

14	Monitor hood 7 cord reel	Sony							
15	Eng tripod (3 steps) W/ACC	Vinten	Vision 10			2 lots	174,000.00	348,000.00	
16	Dynamic Microphone Unidirectional	Sony	F-760			2 pcs.	10,900.00	21,800.00	
17	Unidirectional Mic Sennheiser	Sony	MKH-416 Tu-3			1 set	35,300.00	35,300.00	
18	Soft type wind screen for 15 sennheiser	Sony	Softie-416			1 set	8,800.00	8,800.00	
19	Boom for microphone for 14 Vdb	Sony	605			1 set	11,300.00	11,300.00	
20	UHP Transmitter	Sony	WRT-28 L			2 sets	46,400.00	92,800.00	
21	ECM-77B W/SMC 9-4P connector	Sony	ECM-77BC			2 sets	7,300.00	14,600.00	
22	Portable wireless tuner	Sony	WRR-28L			2 sets	45,100.00	90,200.00	
23	Portable 3 CH Stereo Mixer for eng W/ZCC Sigma	Sony	SS-302			1 set	70,000.00	70,000.00	
24	Portable battery light system 250 w 6000lux sachtlter	Sony	Reporter 250 H			2 sets	67,800.00	135,600.00	
25	Lamp 250w 10pcs/pack for 21	Sony	*****			2 pks	11,400.00	22,800.00	
26	Protoble lighting kit 650 W 220V W/ACC	Sony	SET650-220V			1 set	99,900.00	99,900.00	
27	Spare Lamp 220V 650W for 23	Sony	*****			30 pcs	2,500.00	75,000.00	
28	Portable video cassette recorder/player/w/TBC pal	Sony	BVW-50P			1 set	510,900.00	510,900.00	
29	AC/DC unit for 15 mic MKH-416 TU-3 sennheiser 48 V	Sony	MZN-16TU			1 set	13,500.00	13,500.00	
30	Battery for 18 battery for 1 WRT-28 L 2pcs/pack	Sony	AM3			30 pks.	48.00	1,440.00	

31	Exclusive cable for 1.5 m	Sony	CCRZ-5	1 pc	8,800.00	8,800.00
32	Cameraconnecting cable 26 pin-26pin 5 m	Sony	CCZ-A5	1 roll	8,800.00	8,800.00
33	Vdideo coaxial cable bnc connector 5 m	Sony	UGC-5	5 rolls	550.00	2,750.00
34	Video coazial cable bnc connector 10 m	Sony	UGC-10	6 rolls	800.00	4,800.00
35	MIC extension cable 5m canon M- F	Sony	EC-5XLR2	5 rolls	890.00	4,450.00
36	VTR connector unit 26 p for 1	Sony	BKW-402	2 pcs.	13,600.00	27,200.00
37	Camera remote control unit for 1	Sony	RM-P3	2 sets	37,700.00	75,400.00
38	Standard size video tape for betacam sp 30 m 50 pcs	Sony	BCT-30MA	4 pks.	35,000.00	140,000.00
39	Headphone erega	Sony	DR-531C	1 set	5,300.00	5,300.00
40	Betacam sp recorder pal	Sony	PVM-2800P	1 set	500,600.00	500,600.00
41	Gray Scale Chart	Sony		1 pc	9,600.00	9,600.00
	Total					6,247,200.00

d)Funding Support

No.	Programme	Term	Cost
1	Kanchanaburi IEC Survey	01 Dec '93 - 27 Mar '94	875,519.00
	Total		875,519.00

F. Y. '94/95

Achievement in F. Y., 94/95

1. Project Management/Public Health
A. AIDS Division

a) Despatch of Expert

* Long-term Expert

No.	Name	Term	Field	Thai C/P	Remark
1	Dr. Hideki Fukuda	22 Aug., '94 - 21 Aug., '95	Public Health		

* Short-term Expert

No.	Name	Term	Field	Thai C/P	Remark
1	Dr. Kazuichi Kon-yama	11 July - 27 Aug., '94	Leader		
		01 Nov. - 24 Dec., '94			
		07 Feb - 25 Feb., '95			

b) Funding Support

No.	Programme	Term	Cost
1	Phayao Workshops	16 - 17 June, '94	28,796.00
		27 June - 01 July, '94	140,000.00
		06 July, '94	16,020.00
2	IEC/Universal Precautions	20 Dec., '94 - 30 Mar., '95	599,808.00
	Total		784,624.00

2. Medical Collaboration

A. National Institute of Health

a) Despatch of Expert

*Long-term Expert

No.	Name	Term	Field	Thai C/P	Remark
1	Dr. Kikuko Miyamura	13 June, 94 - 12 June, 95	Virology	Dr. Paichit Warachit	

*Short-term Expert

No.	Name	Term	Field	Thai C/P	Remark
1	Dr. Mitsuo Honda	21 Aug-01 Sept, '94	DNA Sequencing, Quantative Analysis of AIDS	Dr. Jakkris Bhumisawadi	
		13 Nov.-01 Dec., '94		Mr. Wattana Auwanich Ms. Panasda Israngkul Ms. Nonglak Saipradith	
2	Dr. Yuzuru Mikami	06 - 24 Dec., '94	Nocardiosis, Histoplasmosis and Penicilliosis Marneffeii.	Ms. Natteewan Punwan Ms. Jotika Boon-long	
3	Dr. Namiko Yoshihara	11 - 24 Dec., '94	Standardization of Laboratory Diagnosis	Ms. Suranga Saguanwongse Ms. Nuanjun Ruchusatsawat Mr. Archawin Rotjanawiwut	
4	Dr. Hisao Takeda	18 Jan. - 15 Apr., '95	Optimization of PCR for Detecting of CMV	Ms. Suranga Saguanwongse Ms. Sukjai Pholampaisathit	

b) Fellowship

No.	Name	Term	Field	Japanese C/P	Remark
1	Ms. Nonglak Saipradith	16 Jan. - 20 June, '95	Laboratory Diagnosis in HIV infection	Dr. M. HONDA	

c) Provision of Equipment

No.	Item	Specification	Manufacturer	Qty	Price	Place installed
1	Reagent for DNA Sequencer	Ready Reaction Dye Deoxy Terminator Cycle Sequencing Kit	Perkin Elmer	10 pkgs.	239,680.00	
2	Fetal Bovine Serum	500 ml	Gibco	4 btl.	32,100.00	
3	L-gultamine	100 g	Gibco	5 btl.	6,955.00	
4	Lymphoperp	500 ml	Robbins Scientific	10 btl.	21,400.00	
5	Interlukin	50000 U.		2 pkgs.	70,000.00	
6	PCR Reagent Kit	with AmpliTaw DNA Polymerase (250 units)	Geneamp	5 pkgs.	73,830.00	
7	Agarose	Nusieve 3:1, 100g	FMC	2 btl.	18,190.00	
8	HIV Antibody	HIV-1/HIV-2 3 rd Gen. 100T	Abbot	20 kits.	85,600.00	
9	Western Blot	Version 2.2, 36 tests/kit	Diagnostic Biotechnology	20 pkgs.	385,200.00	
10	Reagents for DNA Synthesis	Large bottle DNA Synthesise Reagent Kit dA, 0.2 u Mole GPG Colum dC, 0.2 u Mole GPG Colum dG, 0.2 u Mole CGP Colum T, 0.2 u Mole GPG Colum dA-phosphoramidites 0.25 g dG-phosphoramidites 0.25 g T-phosphoramidites 0.25 g dC-phosphoramidites 0.25 g fitting, Male to Male Luer 5 (for OPC)	ABI	3 btl. 6 sets 6 sets 4 sets 7 sets 3 btl. 3 btl. 3 btl. 3 btl. 5 sets	80,892.00	

11	Adjustable Automatic Pipet	P100 P200 P1000	Gilson	2 pcs. 1 pc 1 pc.	18,725.00 9,095.00 9,095.00
12	Tissue Culture Flask	25 cm2, CS/500 75 cm2, 100/CS	Corning	350 pcs. 250 pcs.	7,490.00 11,770.00
13	Membrane Filter	Acordisc PF 0.8/0.2 um, 50 pkg.	Gelman	4 pkgs.	14,124.00
14	Xcluda Aerosol Barrier Pipet Tip	Style A, 96 tips/rack, 960/box	Bio-rad	1 box	5,564.00
		Style D, 96 tips/rack, 960/box		2 boxes	11,128.00
		Style E, 100 tips/rack, 1,000/box		1 box	5,564.00
15	Micro Tip	TBR-14	Bio-rad	18 bxs.	34,668.00
		TBR-40		8 bvs.	14,980.00
		MTP-39		18 bxs.	38,520.00
17	Disposable Plastic Pipet	1 ml IW, BAG 100 (106 B)	Bibby Sterlin	2,000 pcs.	13,910.00
		2 ml IW,PK 100		2,000 pcs.	14,980.00
		5 ml IW BAG NWP (134 B)		3,000 pcs.	30,495.00
		25 ml. With Suction		2,000 pcs.	44,940.00
		10 ml. With Suction		3,600 pcs.	38,520.00
18	Gorgle for UV	UV Blocking Face Shield	Fotodyne	2 pcs.	7,490.00
19	Mini Spin	Mini Microcentrifuge for 6 x 1.5 ml	Wits Scientific	2 units.	20,330.00
	Total				1,365,235.00

c)Funding Support

No.	Programme	Term	Cost
1	Workshop	06 - 10 June, '94	207,000.00
	Total		207,000.00

B. Children's Hospital

a) Fellowship

No.	Name	Term	Field	Japanese C/P	Remark
1	Mrs. Salinee Panakitsuwan	10 Jan.-02 May '95	Laboratory Diagnosis of HIV infection	Dr. N. YOSHIHARA	

b) Provision of Equipment

No.	Item	Specification	Manufacturer	Q'ty	Price	Place installed
1	Deep Freezer	Ultiam Series Upright, Model ULT-1386-7V-50 C--86 C, 13.4 Cu. Ft.	Revco	1 unit	379,600.00	
2	Flow Cytometer Cell Sorter	Model FACScan 220V, 50 Hz. Double Discrimination Module Application Software Monoclonal Reagents	Becton Dickinson	1 unit	2,845,000.00	
3	ELISA Reader	Automated endpoint Microplate Reader automated Microplate Washer LP 407/LP 35	Anfoi Diagnostic	1 unit	413,000.00	
4	Biosafety Cabinet	Model BHA 1200 Class II; Extremely Super Grade 99.9998% Hepa Filter "Super V Type"	Gib Thai	1 unit	330,000.00	
5	Centrifuge	Dynac II with Angle rotor Place x 15 ml	Becton Dickinson	1 unit	68,100.00	
6	Reagent for FACScan	Simultest Negative Control	Becton Dickinson	24 kits	1,109,250.00	

7	P 24 AG (ICD)	ICD Prep (96 Wells), IMMune Complex Positive Control, HIV antigen (96 test/ Plate)	Coulter	3 kits	34,580.00	
8	Western Blot	HIV-Blot Version 2.2 (36 test/kit)	DB	15 kits	288,900.00	
	Total				5,468,430.00	

3. AIDS Education

A. Health Education Division

a) Dispatch of Expert

*Long-term Expert

No.	Name	Term	Field	Thai C/P	Remark
1	Mr. Kazuaki Sumida	01 Aug., '94 - 30 July, '95	Video-production		

*Short-term Expert

No.	Name	Term	Field	Thai C/P	Remark

B. AIDS- Division

a) Dispatch of Expert

*Long-term Expert

No.	Name	Term	Field	Thai C/P	Remark
1	Ms. Yukari Fukuhara	01 Nov., '94 - 30 June '95	Airdio-Visual Production		

*Short-term Expert

No.	Name	Term	Field	Thai C/P	Remark
1	Mrs. Yoshimi Nishino	14 - 27 Dev.' 94	EIC Research		

b) Fellowship

No.	Name	Term	Field	Japanese C/P	Remark
1	Mr.Kwanmuang Kaeo-dumkoeng	25 Aug. - 26 Dec., '94	Video-production		

c) Provision of Equipment

No.	Item	Specification	Manufacturer	Q'ty	Price	Place installed
1	Betacam SP Recorder	PAL,PVW-2800 P	Sony	1 unit	561,462.00	
2	Betacam SP Player W/D Function	PAL, PVM-2650 P	Sony	1 unit	528,429.00	
3	Rack Mount Metal	For PVM series, RMM-110	Sony	3 sets	31,746.00	
4	TBC Remote Controller	PAL, BVR-50 P	Sony	2 sets	59,598.00	
5	Editing Control Unit	BVE-2000	Sony	1 unit	319,819.50	
6	Editing Keyboard	For BVE-2000,BKE-2010	Sony	1 unit	106,722.00	
7	PAL Colour Framing Detector	BKE-2031	Sony	1 unit	31,993.50	
8	Computer Display	CPD-12ICE	Sony	1 unit	20,905.50	
9	Connecting Cable 9P-9P	RCC-10G	Sony	4 pcs.	31,746.00	
10	Connecting Cable 15P	RCC-10A	Sony	1 pc.	9,240.00	
11	Video Switcher W/DME	PAL,DFS-500P	Sony	1 unit	571,395.00	
12	Trail and Lighting Board	BKDF-501P	Sony	1 unit	162,822.00	
13	DSK Board	BKDF-502P	Sony	1 unit	73,337.00	
14	Rack Mount Metal	for DFS-500P, BKDF-503	Sony	1 pc.	6,985.00	
15	Compornebt Cable	5 m, VDC-05	Sony	5 pcs.	37,015.00	
16	8 ch Audio Mixer W/Video edit. Intex	MX-290	Sony	1 unit	105,336.00	

17	Rack Mount Adaptor	For MXP-290, MXBK-200	Sony	1 unit	3,672.90
18	Audio Distributor	SRP-400 DA	Sony	2 unit	52,206.00
19	A Pair of Hi-Fi Speakers in Encolce	MU-S501	Sony	1 unit	19,492.00
20	Power Amplifier	SPR-P2070	Sony	1 unit	24,310.00
21	Colour Monitor	20 inch, PAL, 220V, BVM-2016P	Sony	1 unit	194,216.00
22	Colour Monitor	0 inch, PAL, 220 V, PVM-9044 QM	Sony	1 unit	46,233.00
23	Colour Monitor	14 inch, 4 system, 220V, PVM-1454 QM	Sony	3 units	114,939.00
24	Monitor Cable 8P-8P	10 m, VMC-10P	Sony	3 pcs.	
25	Vector Scvope	PAL, 5851V/Leader	Sony	1 unit	88,000.00
26	Waveform Monitor	PAL, 5861V/Leader	Sony	1 unit	93,500.00
27	Combine Shelf	LR2400 VI	Sony	1 unit	22,000.00
28	Ac Outer Box	for distributing AC 220 V, special	Sony	1 unit	90,000.00
29	Audio Installation Material		Sony	1 unit	90,000.00
30	Video Installation Material		Sony	1 unit	30,000.00
31	U-Matic Editing Recorder	PAL, VO-9850 P	Sony	1 unit	15,000.00
32	Rack W/Caster	Special	Sony	1 unit	30,000.00
33	Betacam Cleaning Cassette	BCT-5CLN	Sony	3 pcs.	50,000.00
34	S-VHS Cleaning Cassette	T-25CLP	Sony	2 pcs.	290,642.00
35	BETACAM-SP Cassette Tape	30 M, BCT-30 MA	Sony	100 pcs.	11,000.00
36	BETACAM-SP Cassette Tape	60 M, BCT-60 MLA	Sony	30 pcs.	1,524.60
37	S-VHS Cassette Tape	120 M, VXSE-120VB	Sony	100 pcs.	1,502.60

38	S-VHS Recorder	SVO-5800P	Sony	1 unit	85,470.00
39	S-VHS Player	SVO-5600 P	Sony	1 unit	37,785.00
40	Editing Control Unit	PVE-500	Sony	1 unit	36,960.00
41	S-Video Cable	SYC-2	Sony	1 unit	191,554.00
42	Control Cable	RCC-5G	Sony	2 pcs.	150,150.00
43	Colour Monitor	PVM-9044QM	Sony	2 units	95,777.00
44	Editing Table		Sony	1 unit	808.50
45	CPU	7100/66 AV	Macintosh	1 unit	9,306.00
46	Monitor	Apple 14 inch	Macintosh	1 unit	92,466.00
47	Keyboard	Type 2	Macintosh	1 unit	5,500.00
48	Video Converter	V-Master	Macintosh	1 unit	153,750.00
	Total				1,164,195.70

⑥ 帰国報告会議事録

平成7年3月27日
医療協力部医療協力第一課
担当者：鳥居 久

会 議 報 告

会議名	タイ国エイズ予防対策プロジェクト・計画打合せ調査団帰国報告会
日時	平成7年3月27日(月) 14:00~16:30
場所	JICA本部会議室(50階ブリーフィングルーム)
参加者	大谷 明(国立予防衛生研究所名誉所員)、本多三男(国立予防衛生研究所山崎所長代理出席、同所エイズ研究センター予防治療室長)、岩本愛吉(東京大学医科学研究所感染症研究部教授)、牟田博光(東京工業大学工学部教育計画研究室教授)、栗村 敬(大阪大学微生物病研究所感染病理学部門教授)、曾田研二(横浜市立大学医学部公衆衛生学教授)、石井博史(厚生省国際課)、内海成治(国際協力専門員)、大西英之(外務省技術協力課)、新村和哉(厚生省エイズ結核感染症課)、野田孝夫(文部省教育文化交流室)、鈴木英明(国際協力事業団医療協力第一課長)、八重樫成寛(同課課長代理)、鳥居 久(同課職員)
協議内容	<p>1. 計画打合せ調査団報告</p> <p>(1) 総括</p> <p>プロジェクト企画時点ではエイズ感染の予防教育が政府の方針として全面に出ていたが、今回の訪問ではそれとともに感染者、患者の社会生活(Quality of life)の重視が取り上げられていた点が印象的だった。</p> <p>プロジェクトの多くはまだ活動の初期段階にある。残余期間で進展が期待されるのは、小児病院との協力による母子感染の実態把握への協力等である。バヤオ県への協力については、協力の具体的方策の検討が必要である。</p> <p>(2) 実験室診断および病態把握分野(小児エイズ問題を含む)</p> <p>問題点として、NIH所員の中で研究指導体制が十分にとられていないことが上げられよう。残余期間で日本側専門家は、セミナーの開催や図書の充実などによって、自発的な研究体制の構築に協力すべきだろう。バヤオ県への協力については、NIHとの連携を図ることが重要である。小児病院については、NIHと一部競合することも考えられるが、それもNIHの自覚を促す上で有益だろう。</p> <p>(3) 疫学解析分野</p> <p>タイにおけるエイズ流行は、北部において顕著である。バヤオ県では92年以降毎年約2倍の急増がみられ、累積発生率(対人口比)は全国平均の10倍近い。これまでに福田専門家が県病院等を視察し、検査施設、陣容、検査方法・実績などに関する実態調査、および県エイズセンターを中心とした情報収集の現状とその精度についての解析を行っている。病院内のユニバーサルプレコーション(以下UP)については、感染性物体取扱いの実態調査と教育メディアの開発を検討中である。残余期間中に、UPの推進とHIV/AIDS等の保健情報の収集・利用システム構築に関する協力の進展が期待される。</p> <p>(4) エイズ教育</p> <p>保健教育課への協力は見直しを行い、現在派遣中の長期専門家は任期満了をもって帰国させる(後任派遣なし)。6年度供与機材の納入がこれら専門家の帰国後となった場合は、短期専門家派遣で対応する。バヤオ県での地域展開は検討に値すると考えるが、UPがパンフレット作成程度にとどまるのなら、長期専門家常駐の必要性は疑問。より専門性の高い活動を行う必要があるのではないか。</p> <p>(5) 当プロジェクトとGIIの展開について</p> <p>タイではエイズ感染の一段の悪化が予想される状況にある。この中で日本ができる協力は何かを考える必要がある。バヤオ実験モデルは、GIIの観点からも基本的には望ましい内容となっており、考慮に値する。ただし、以下3つの問題をクリアすることが必要であろう。①同モデルは内容的に広範囲であるとともに、相当量に上る。②同モデ</p>

協議内容	<p>ル支援のためのタイ政府関係省庁による協調体制の構築、③プロジェクト実施体制の強化。</p> <p>2. プロジェクト終了に向けての方針</p> <p>(1) 実験室診断および病態把握分野 (小児エイズ問題を含む) 感染症診断について、NIHと小児病院をセットにして協力を進める。</p> <p>(2) バヤオ県への協力 残余期間でバヤオ実験モデルに協力する。具体的には、以下の2点において現行R/Dの範囲内で協力をを行う。なお、実験室分野での活動に当たっては、バヤオをNIHのフィールドと位置付け、両者の強力な連携を図る。そのために、日本側専門家も協力する。また、同県での活動では福田専門家の存在が重要なので、栗村、曾田両委員が同専門家の派遣期間延長のための調整を行う。紺山リーダーから強い要請のある公衆衛生専門家の増員(1名)については、曾田委員が人選を進める。 なお、地域社会に基づく保健情報システムの開発については、協力を見送る。</p> <p>I. バヤオ県病院の検査機器の高度化とHIV/AIDS診断技術の改善 目的: ①検査室機器利用の現状の評価 ②HIV/AIDS診断に要する機器と技術の供与 ③実行計画の評価およびバヤオ県病院への助言 ④検査の技術水準の維持 方法: 検査機器利用状況を調査し、必要機器を供与し、定期的な技術水準の評価を行う。また、検査技術向上のための研修会を開催する。</p> <p>II. 医療施設内におけるHIV/AIDSに対する一般予防対策(UP)の推進 目的: ①全般的には各種手法による関連メディアの開発と啓発の推進 ②病院の特定レベルの職員のHIV感染予防 ③UP推進のための教育コースの開催 ④プログラム実施後の効果の評価 方法: プログラム開発、予備試験と評価、メディアの開発、宣伝・啓発方法、再教育、事後試験と評価、全体評価 なお、UP推進のためのメディアとしては、ポスター、ステッカー、パンフレットなどが考えられるが、その対象項目は、①手洗いの励行、②ゴム手袋の使用、③血液取扱い時の針刺し事故の予防、④院内廃棄物の適正管理、⑤院内事故の応急措置などに重点を置く。</p> <p>(3) エイズ教育 6年度機材到着後に短期専門家を派遣する。また、メディア制作分野以外(IEC分野)での協力内容について、内海委員が検討する。</p> <p>(4) 評価へ向けての活動の3本柱 上記の内(1)、(2)-I、(2)-IIを評価へ向けての3本柱と位置づける。</p> <p>3. プロジェクト終了後の方針 残余期間内に2.に記載した活動で十分な成果を上げることは困難と予想されることから、1~2年の延長を考慮する方向で検討を進める(最終的には評価調査団で協議・検討する)。フェーズIIについては、延長した場合に、延長期間中の活動内容、および諸般の状況をみて検討する。</p> <p>4. その他 (1) 紺山リーダーの長期派遣を実現すべく調整を行う。 (2) 次回国内委員会 日 時: 平成7年7月20日(木) 午後2時~ 議 題: 評価調査団日程と団員構成 平成7年度短期専門家(栗村委員)の業務報告 等</p> <p style="text-align: right;">以上</p>
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⑦ プロジェクト紹介パンフレット

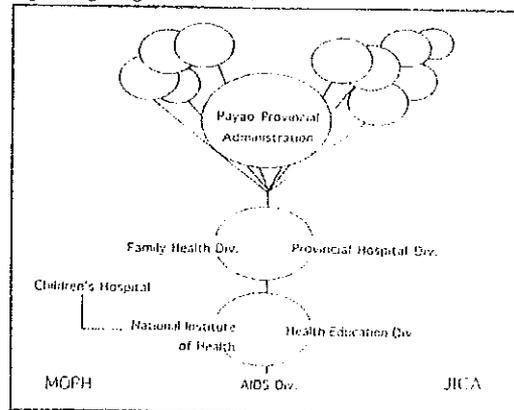


The Project in New Era

AIDS, a new life threatening disease of the century, challenges people's innovative wisdom. The AIDS epidemic is closely associated with the social behaviors of mankind. Medical knowledge alone is not enough to fight against it. It requires close inter-sectorial cooperation on top of people participation. Despite continuing efforts exerted by both government and private sectors, the AIDS epidemic in Thailand shows further expansion.

"The Project for Prevention and Control of AIDS" is a technical cooperation programme between the Royal Thai Ministry of Public Health (MOPH) and the Japan International Cooperation Agency (JICA). The Project has implemented its activities since July 1993.

Action and large elements of the Project are encompassing wide fields of biomedical, clinical medicine, public health, mass education as well as social intervention. Thus cooperation of the Project covers all units in MOPH fighting against HIV/AIDS.



JICA





Biomedical Cooperation

This cooperation aims to strengthen laboratory activities on AIDS to improve medical services for AIDS/ARC patients and HIV carriers.

MOPH in collaboration with JICA has been promoting research activities of the National Institute of Health (NIH). Based on these efforts, the Project carries out following activities:

- * Improvement of laboratory diagnosis of HIV infection and AIDS-related opportunistic infections in Thailand by establishing a network of reference activities in NIH, regional centres and hospitals.
- * Cooperation in quality control and evaluation of laboratory testing and diagnostic reagents by establishing a storage system of specimens required for the activity.
- * Epidemiological monitoring of HIV infection including vertical transmission by characterizing HIV isolates for biological, genetic and immunological properties, and their relation to the pathogenesis.

Research and development in laboratory sciences will help upgrading laboratory technology and analysis. The Project supports these activities and provides necessary equipment.

AIDS Education

Non medical cooperation aims to strengthen mass education on AIDS through multiple media encouraging people's AIDS preventive behaviors.

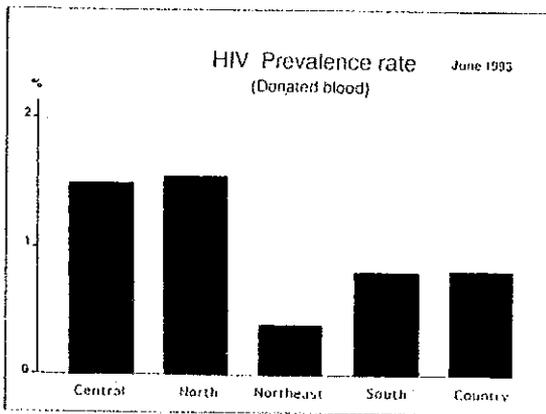
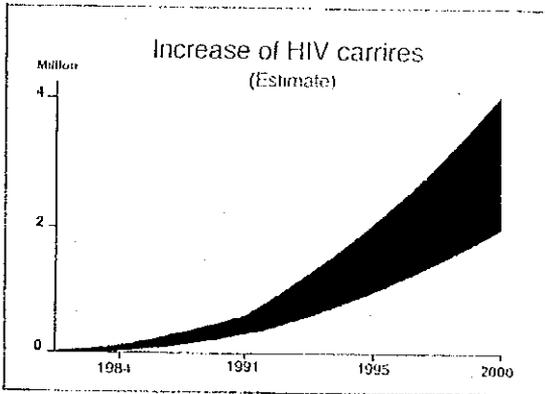
AIDS is a social and problem. Everybody is able to get AIDS, but at the same time, everybody can take measure to escape from it. The key weapon to fight the spread of AIDS is to make people aware of how to protect themselves against AIDS, how to participate in AIDS prevention activities and how to live with AIDS.

This Project provides these messages through multiple educational media and encourages people to communicate and exchange ideas/opinions about AIDS. To achieve these purposes, the Project carries out the following activities:

- * Situation analysis to design IEC strategies for AIDS education.
- * Development of AIDS educational materials.
- * Development and application of appropriate methods on AIDS education.







Living with AIDS

Regional Cooperation

Regional collaboration develops an appropriate package to be transferred to each operational site. It involves standardized technology for diagnostic laboratories, general precautions in medical settings, practical methods in IEC (Information, Education and Communication) strategy and multiple educational media to promote AIDS preventive behaviors in various institutions and public.

The Project for Prevention and Control of AIDS
 Ministry of Public Health, Nonthaburi 11000 Thailand
 Tel.66-2-591-8411-2 Fax.66-2-591-8413

JICA