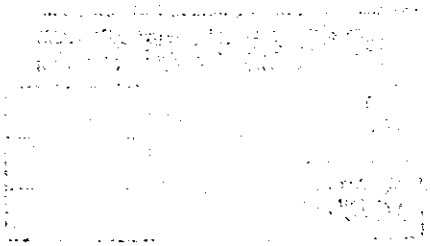
ユーゴスラビア国
PHC生涯教育プロジェクト
実施協議調査報告書

資　　料　　編

昭和60年1月

国際協力事業団
医療協力部

資　料　目　次



資　料　1

ユーゴ側関係者リスト

資料１

ユーゴ側プロジェクト関係者リスト

ユーゴスラビア側関係者として，厚生大臣以下１８名があげられている。その中のworking member に○を，その責任者に◎を附しておく。

1. MLADEN RADMILOVIĆ - M.D., President of the Republic Committee for Health and Social Welfare of SR Croatia.

2. FARUK REDŽEPAGIĆ - Director, Republic Administration for Technical Cooperation SR Croatia.

3. LJUBOMIR ČEČUK - Ph.D., M.D., Dean of Medical School, University of Zagreb.

④ BERISLAV SKUPNJAK - M.D., Director, Institute for Organization and Economics of Health, Zagreb.

⑤ SILVIJE VULETIĆ - M.D., Professor of Health Statistics, Director, A. Štampar, School of Public Health, Medical School, University of Zagreb.

⑥ ŽELJKO JAKŠIĆ - Ph.D., M.D., Professor of Social Medicine, A. Štampar, School of Public Health, Medical School, University of Zagreb.

7. BOŽIDAR GAVAZZI - M.D., Head, International Department of the Republic Committee for Health and Social Welfare of SR Croatia.

⑧ IVO ETEROVIĆ	- M.D., Secretary General, Association of Health Institutions of SR Croatia.
9. MIRJANA MLADINEO	- B.A., Officer, Republic Administration for Technical Cooperation SR Croatia.
⑩ DJURO DEŽELIĆ	- Ph.D., Professor of Health Informatics, A. Štampar, School of Publich Health, Medical School, University of Zagreb
⑪ KARMELA KRLEŽA-JERIĆ	- M.D., Head of Department for International Relations and Cooperation of the Institute for Organization and Economics of Health, Zagreb
⑫ GORDANA PAVLEKOVIĆ	- M.D., Assistant of Social Medicine, A. Štampar, School of Public Health, Medical School, University of Zagreb
⑬ MIRO MASTILICA	- B.A. Sociologist, Assistant of Medical Sociology, A. Štampar, School of Public Health, Medical School, University of Zagreb
⑭ DUBRAVKO ŠMIGMATOR	- B.S.(EE), Staff Member Institute for Organization and Economics of Health, Zagreb
⑮ GOJKO ŠKRBIĆ	- B.A., Staff Member Institute for Organization and Economics of Health, Zagreb
16. MAJA DRAGIČEVIĆ	- M.D., Staff Member Institute for Organization and Economics of Health, Zagreb
17. DALIBOR MARTINIS	- B.A., Video Producer
18. STEVO SUČEVIĆ	- M.Sc.(E.E.), Head of the Video Department of the Zagreb Television

資　料　2

Record of Discussions

THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE IMPLEMENTATION SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE SOCIALIST FEDERAL REPUBLIC OF YUGOSLAVIA ON THE JAPANESE TECHNICAL COOPERATION FOR THE PROJECT OF CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

The Japanese Implementation Survey Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA) and headed by dr Masatomo Tati, visited the Socialist Federal Republic of Yugoslavia from November 16 to 27, 1984 for t he purpose of working out the details of technical cooperation program concerning the Project on the Continuing Education for Primary Health Care with the Yugoslav authorities concerned taking into account the Agreement between the Government of the Socialist Federal Republic of Yugoslavia and the Government of Japan on cooperation in the field of science and technology, signed in Tokyo on May 22, 1981.

During its stay in the Socialist Federal Republic of Yugoslavia, the Team Exchanged views and had a series of discussions with the Yugoslav authorities concerned in respect of the desirable measures to be taken by both Governments for the successful implementation of the above-mentioned Project.

As a result of the discussions, both parties agreed to recomend to their respective Governments the matters referred to in the document attached hereto.

Zagreb, November 26, 1984

Dr.Masatomo Tati

Leader
Implementation Survey Team
Japan International
Cooperation Agency, Japan

M. Tati

Marin Geršković

Deputy Director
Federal Administration for
International Scientific,
Educational, Cultural and Techni
Cooperation, Socialist Federal
Republic of Yugoslavia

Faruk Redžepagić

Director
Republic Administration for
Technical Cooperation of the
Socialist Republic of Croatia

F. Redžepagić

Dr.Berislav Skupnjak

Director
Centre for Health Cooperation
with Non-Aligned and Developing
Countries

Dr.Željko Jakšić

Principal investigator
"A.Štampar" School of Public
Health

THE ATTACHED DOCUMENT

I - COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of Japan and the Government of the Socialist Federal Republic of Yugoslavia through the Federal Administration for International Scientific, Educational, Cultural and Technical Cooperation will cooperate with each other in implementing the Project on the Continuing Education for Primary Health Care (hereinafter referred to as "the Project") which aims to establish in the Socialist Republic of Croatia a model of the continuing education system for primary health care assisted by electronics technology, in order to improve the quality of health care delivery system in the Socialist Republic of Croatia.

2. The Project will be implemented in accordance with the Master Plan which is given in I of the Annex.

II - DISPATCH OF JAPANESE EXPERTS

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense services of the Japanese experts as listed in II of the Annex through the normal procedures under the Technical Cooperation Scheme of the Government of Japan.

2. The Japanese experts referred to in 1 above and their families will be granted in the Socialist Federal Republic of Yugoslavia the privileges, exemptions and benefits no less favourable than those accorded to experts of third countries or of international organizations performing similar

missions in the Socialist Federal Republic of Yugoslavia, which will include the following:

(1) Exeption from income tax and charges of any kind imposed on or in connection with the living allowances remitted from abroad in relation with the implementation of the Project;

(2) Exeption from import and export duties and any other charges imposed in respect of personal and household effects including one motor vehicle per each expert which may be brought into from abroad or taken out of the Socialist Federal Republic of Yugoslavia;

(3) Free medical services and facilities to the Japanese experts and their families.

III - PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project as listed in III of the Annex through the normal procedures under the Technical Cooperation Scheme of the Government of Japan.

2. The Equipment will become the property of the Socialist Federal Republic of Yugoslavia in accordance with the laws and regulations in force in the Socialist Federal Republic of Yugoslavia upon being delivered c.i.f. to the Yugoslav

authorities concerned at the port(s) and/or airport(s) of disembarkation, and will be utilized exclusively for the implementation of the Project in consulation with the Japanese experts referred to in II of the Annex.

IV - TRAINING OF YUGOSLAV PERSONNEL IN JAPAN

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to receive at its own expense the Yugoslav personnel connected with the Project for technical training in Japan through the normal procedures under the Technical Cooperation Scheme of the Government of Japan.

2. The Government of the Socialist Federal Republic of Yugoslavia will take necessary measures through the Republic Administration for Technical Cooperation of the Socialist Republic of Croatia to ensure that the knowledge and experience acquired by the Yugoslav personnel from technical training in Japan will be utilized effectively for the implementation of the Project.

V - SERVICES OF YUGOSLAV COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. In accordance with the laws and regulations in force in the Socialist Federal Republic of Yugoslavia, the Government of the Socialist Federal Republic of Yugoslavia will take necessary measures through the Republic Administration for Technical Cooperation of the Socialist Republic of Croatia to

secure at its own expense the necessary services of Yugoslav counterpart and administrative personnel as listed in IV of the Annex.

2. The Government of the Socialist Federal Republic of Yugoslavia will allocate through the Republic Administration for Technical Cooperation of the Socialist Republic of Croatia the necessary number of suitably qualified personnel corresponding to each Japanese expert to be dispatched by the Government of Japan as specified in II of the Annex for the effective and successful transfer of technology under the Project.

VI - MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE SOCIALIST FEDERAL REPUBLIC OF YUGOSLAVIA

1. In accordance with the laws and regulations in force in the Socialist Federal Republic of Yugoslavia, the Government of the Socialist Federal Republic of Yugoslavia will take necessary measures through the Republic Administration for Technical Cooperation of the Socialist Republic of Croatia to provide at its own expense:

(1) Land, buildings and facilities as listed in V of the Annex;

(2) Supply or replacement of machinery, equipment, instrument, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided through JICA under III above;

(3) Transportation facilities and travel allowance for the official travel of the Japanese experts within the Socialist Federal Republic of Yugoslavia;

(4) Suitably furnished accommodations for the Japanese experts and their families.

2. In accordance with the laws and regulations in force in the Socialist Federal Republic of Yugoslavia, the Government of the Socialist Federal Republic of Yugoslavia will take necessary measures through the Republic Administration for Technical Cooperation of the Socialist Republic of Croatia to meet:

(1) Expenses necessary for the transportation of the Equipment within the Socialist Federal Republic of Yugoslavia as well as for the installation, operation and maintenance thereof;

(2) Customs duties, internal taxes and any other charges, imposed on the Equipment in the Socialist Federal Republic of Yugoslavia;

(3) All running expenses necessary for the implementation of the Project.

VII - ADMINISTRATION OF THE PROJECT

1. The Federal Administration for International Scientific, Educational, Cultural and Technical Cooperation and the Republic Administration for Technical Cooperation of the Socialist Republic of Croatia will bear overall responsibility for the implementation of the Project.

2. The Director of the Centre for Health Cooperation with Non-Aligned and Developing Countries, as the Head of the Project, will be responsible for the administrative and managerial matters of the Project.

3. The Japanese experts will give necessary technical guidance and advice to the Yugoslav counterpart personnel on matters pertaining to the implementation of the Project.

4. For the effective and successful implementation of the Project, a Joint Coordinating Committee will be established with the function and composition as referred to in VI of the Annex.

VIII - CLAIMS AGAINST JAPANESE EXPERTS

The Republic Administration for Technical Cooperation of the Socialist Republic of Croatia undertakes to bear claims, if any arises, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Socialist Federal Republic of Yugoslavia except for those arising from the willful misconduct or gross negligence of the Japanese experts.

IX - MUTUAL CONSULATION

There will be mutual consultation between the two Governments on any major issues arising from, or in connection with this Record of Discussions.

X - TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be five (5) years from the date of signature. However, there will be a general review by the Joint Coordinating Committee on the progress of the implementation of the Project during the third year of the cooperation period in order to assess whether the term of cooperation should be modified for the successful implementation of the Project.

ANNEX

I MASTER PLAN

1. Objective of the Project

The main objective of the Project is to design and put into practice in the Socialist Republic of Croatia a model of electronics assisted continuing education system for health workers with special emphasis on primary health care.

Introduction of this continuing education system is intended to improve the quality of health care delivery system in the Socialist Republic of Croatia.

2. Activities

The activities of the Project will include the following:

- Establishment of "Educational Media Centre for Primary Health Care" for production, distribution, storage and evaluation of audio-visual and computer assisted educational material;
- Establishment (identification, mobilization and organization) of a network of users around the Centre mentioned above for distribution of educational material and feed-back of the needs of users;
- Adaptation of premises and installation of equipment
- Preparation of educational materials
  a) audio-visual educational materials
  b) computer educational materials

- Training and personnel management activities, ensurance of staff competence and performance; and

- Evaluation of the entire project operation.

3. Implementation of technical cooperation

The Government of Japan will cooperate with the Government of the Socialist Federal Republic of Yugoslavia through the Federal Administration for International Scientific, Educational, Cultural and Technical Cooperation in carring out the Project through dispatch of the Japanese experts, acceptance of Yugoslav personnel for training in Japan and provision of equipment.

II JAPANESE EXPERTS

Experts in the fields of:

(1) audio-visual education
(2) audio-visual equipment (system design, operation and maintenance)
(3) computer-assisted education
(4) computer equipment (system design, operation and maintenance)
(5) medical and health education
(6) other related fields matually agreed upon as necessary.

III LIST OF EQUIPMENT

Material for education system assisted by electronics technology:

(1) video camera
(2) editing unit
(3) audio equipment
(4) monitor/receiver
(5) reproduction equipment
(6) video cassettes
(7) accessories for EFP application
(8) video transfer system
(9) duplicating system
(10) users equipment (need to specify)
(11) external communications
(12) micro computer system with pilot software
(13) physical skills laboratory (medical simulators)
(14) floppy disk
(15) spare parts for audio-visual and computer equipment
(16) slide production set
(17) additional equipment and material mutually agreed upon as necessary.

IV LIST OF YUGOSLAV COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Heads of the Project

(1) Director, Center for Health-Cooperation with Non-Aligned and Developing Countries
(2) Principal Investigator, A. Štampar School of Public Health Medical School, University of Zagreb

2. Counterpart personnel listed as below:

(1) Principal coinvestigator
(2) Project coordinator
(3) Project manager

a) Educational staff

(4) Education programmer
(5) Educator
(6) Field promotion officer
(7) Screen writter
(8) Librarian
(9) Editoral board
(10) Consultants (other specialists if nesessary)

b) Video technology staff

(11) Video technical manager
(12) Video editor
(13) Photograph laboratory technician
(14) Other video experts
(15) Maintenance technician

c) Computer technology staff

(16) Computer technical manager
(17) Computer programmer
(18) Other Computer experts
(19) Maintenance Technician

d) Administrative personnel

(20) ~~Technical manager~~ Project secretary M.T. ch.g.
(21) Administrator
(22) Accountant
(23) Typists
(24) Other necessary administrative staff.

V LIST OF LAND, BUILDING AND FACILITIES

1. Land (Educational Media Centre for Primary Health Care)

2. Building and facilities

(1) Enough space for the Centre in the building of the A. Štampar School of Public Health

(2) Facilities such as electricity, gas and water supply, sewerage system, telephone and furnitures necessary for the activities under the Project period.

VI JOINT COORDINATING COMMITTEE

1. Functions

The Joint Coordinating Committee will meet at least once a year and whenever necessity arises, and work:

(1) To work out the Annual Work Plan of the Project in line with the Tentative Schedule of Implementation formulated under the framework of this Record of Discussions;

(2) To review the overall progress of the technical cooperation program as well as the achievements of the above-mentioned Annual Work Plan;

(3) To review and exchange views on major issues arising from or in connection with the technical cooperation program period.

2. Composition

(1) Yugoslav side

a) Director, Republic Administration for Technical Cooperation of the Socialist Republic of Croatia (Chairman)

b) President, Republic Committee for Health of SR Croatia

c) Association of Health Institution of the Socialist Republic of Croatia

d) Selfmanaging Community of Interest (SIZ) for Health Manpower Education

e) Director, Centre for Health-Cooperation with Non-aligned and Developing Countries

f) Principal investigator

g) Members of a Team (dispatched by Republic Administration for Technical Cooperation of the Socialist Republic of Croatia, if necessary)

(2) Japanese side

1) Experts
2) Members of a team to be dispatched by JICA, if necessary

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*Note: Officials of the Embassy of Japan in the Socialist Federal Republic of Yugoslav may attend the Joint Coordinating Committee as observers.

資　料　3

Memorandum

資料 3

A. Stampar School of Public Health
Medical School, University of
Z a g r e b

Institute for Organization
and Economics of Health
Z a g r e b

as members of

CENTRE FOR HEALTH COOPERATION WITH NON-ALIGNED
AND DEVELOPING COUNTRIES

PROJECT: CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

M E M O R A N D U M

of the joint work on preparation of the project done by the Japanese Implementation Survey team and the Yugoslav Implementation Team

1. General statement

It has been noted, that the materials prepared in the period between two meetings show the big advancement in project development. (January / February and November 1984).

1.1. In order to make progress in the project preparation, a review was done of several documents. These are the following documents:

a) Draft of the Annex of the "Record of discussions"..... Yugoslav proposal prepared in October 1984
b) "Plan of Implementation" prepared in July 1984
c) "Preliminary Survey" prepared in July 1984
d) "Videotechnology in the Project" text jointly prepared by engineers-consultants to JICA and engineers, member of Yugoslav team, prepared in July* 1984.

1.2. The Yugoslav side wishes to express its appreciation for the conciensious work of Japanese experts during their stay in Zagreb in November 1984. These joint work has contributed significantly to the project development.

* 正しくは November 1 9 8 4

2. In discussions concerning the Draft of the Annex of the RECORD OF DISCUSSIONS Yugoslav proposal prepared in October ! following technical points have been agreed upon:

2.1. Throughout the document the title of the project should be "Continuing education for the primary health care".

2.2. The name of the Centre should be changed as mentioned under point 2.1.* of this Memorandum.

2.3. In the chapter 3 in the list of equipment the following changes have been made in respective items.

(12) micro computer system with pilot software
(13) physical skills laboratory (medical simulators)
(for better understanding a proposed list of equipment is added as Annex A to this Memorandum but should not be specified in the text of the Master plan).

However, the physical skills laboratories are a subject for further discussion.

Item 16 becomes (17) The quote of Master plan 1984 should be deleted.
and add item (16) Slide production set.

The specification and quantification of equipment is done in section 4 of this Memorandum.

2.4. In section IV List of Yugoslav counterparts and administrative personnel the following changes have been made:

2.4.1. The first should read:

1. Heads of the project:
(1) Director, Center for Health Cooperation with Non-Aligned and Developing Countries
(2) Principal Investigator, A. Stampar School of Public Health, Medical School, University of Zagreb.

2.4.2. The numbering of staff in bracketts should continue including also the administrative personnel. I.e. the Principal coinvestigator will have No. 3, Project coordinator No. 4, and so on, so that the Project Secretary will have No. 22, Administrator 23 etc.

2.4.3. The group a) Yugoslav counterparts (chapter 4) instead of "Health education - staff", should read "Educational-staff".

* 正しくは3.1

3. In discussion on the PLAN OF IMPLEMENTATION (July 1984) the following changes have been agreed:

3.1. Whenever the expression "Centre of production and of distribution of educational materials for continuing education" or "Centre" is mentioned, the new title of the Centre has to be used, for example: Educational Media Centre for PHC (PHC EMC) (Obrazovna medija primarne zdravstvene zastite).

3.2. In the page 1., as Objective No 6 the following text has to be added:

"6. Development of the project evaluation system and evaluation of the first year activities.

3.3. In the Project core working groups (PCWG) Computer technical manager should be included (point 1.6., page 4), and consequently included in staff responsible in points 1.4., 3.2., 4.3.

3.4. In page 4, point 1.6. the text should read: Detailed programming and plan of implementation of the project will be developed and proposed by the Project core working group (PCWG) and discussed and approved by Joint Coordinating Committee through correspondence or in meetings.

3.5. In discussion about point 3.1. the information was shared that under optimal conditions the first part of equipment can be expected not earlier than at the end of 1985, except for minor parts of equipment brought in by Japanese experts.

3.6. In point 4.3.1. (page 7) the words "from software producers" have to be deleted. The expectations of experts are that at the beginning of the project roughly 20% of software will be originally produced, and an increase up to 80% may be expected at the end of the project.

3.7. The text in the point 4.3.2. (page 8) should read: Conceptual design of up to 3 courseware products chosen from the CAI themes.

3.8. In point 4.5. (page 9) the electronic library is understood to mean AV and computer library. The number of the point should be changed to point 4.4.

3.9. The point 4.4. should be transferred to the end of the document and placed there under number 6.2.

3.10. In addition to what is stated in point 5.1. (page 9), it was discussed that on request from the Yugoslav side three groups of experts might be useful and necessary:

- technical experts to advise and supervise the installation of equipment and training of Yugoslav team;
- computer expert for helping development of CAI software;
- other individual experts for short stay for advice in design of educational activities.

It is understood in principle that visit of Japanese technical experts should follow training of Yugoslav technical experts in Japan which will be adequate preparation for further development of collaboration.

On the other hand, the need is expressed by the Yugoslav side to request a short term team of experts for continuous education from Japan to come in 1985 prior to the installation of equipment (expected towards the end of 1985) in order to ensure further progress in project development.

3.11. In point 5.2. (page 10) a strong feeling was raised that the first year training in Japan is crucial for the future development of the project and because of that 4 experts from the Yugoslav side are proposed to be trained in Japan:

- Technical AV manager (organization of the AV system) (3-6 months)
- Video editor (3-6 months)
- Education programmer (2-4 months)
- computer programmer (2-6 months)

It was understood that a separate official request is expected from the Yugoslav side with all necessary usual details in forms A1 - A4, not later than in April 1985.

3.12. At the end of the text the following should be added:

PROJECT ACTIVITIES RELATED TO THE OBJECTIVE 6

6.1. The Project evaluation system will be developed and applied to the first year of the project.

Staff responsible: Principle investigator, director and other members of the PCWG."

Duration: 3 months (last three months of the first year).

4. Equipment

The following are the Tentative lists of equipment including quantifications per years and it is understood that these lists will be further revised and officially proposed by Yugoslav side not later than April 1985.

4.1. Video technology in the project

		Quantity	Fiscal yr.
A.	Studio		'85
	(1) 3 tube 2/3" saticon tubes camera with accessories	2	
	(2) lighting system with dimmer	1	
	(3) monitor TV	1	
	(4) microphones	4	
	(5) intercom	2	
B.	Editing/Post production		'85
B.1.	(1) AV consoles		
	(2) editing recorder U-matic "H"	3	
	(3) VHS player	1	
	(4) U-matic "S" recorder (PAL, SECAM, NTSC)	1	
	(5) editing system (editing controller, SEG, chroma key, TBC, RCU, AV patch, etc.)	1	
	(6) monitor TV	7	
	(7) stereo amplifier	1	
	(8) stereo open-reel tape deck	1	
	(9) cassette table	1	
	(10) turn table	1	
	(11) loud speaker set	1	
	(12) headphone	1	
	(13) intercom	1	
	(14) caption camer (B/w)	1	
	(15) 8 channel audio mixer	1	
B.2.	Video transfer system		
	(1) Telecine (16/8 mm film and slide film)	1	
C.	Multi-dubbing		'85
	(1) from U-matic to VHS (1:10)	1	
D.	Shooting in the field		'85
D.1.	by the video team	1 set	
	(1) 3 tube 2/3" saticon tube camera		
	(2) zoom lens		
	(3) camera cables		
	(4) field tripod		
	(5) battery pack and belt		
	(6) battery charger		
	(7) AS adapter		

(8) portable lighting system (AS and battery)
(9) portable U-matic "H" VTR
(10) color monitor TV (AS/DC)
(11) battery pack
(12) A/V cable
(13) microphone with cable
(14) portable audio mixer
(15) audio cassette deck

D.2.	by A.E.U. (1) small camera (with zoom remote)/tripod (2) VHS VTR (with remote controller and small monitor)	5 sets	'86-87
D.3.	by out-patient clinics (1) single tube camera (2) VHS VTR (3) portable lighting set	5 sets	'86-87
D.4.	Special shooting equipment will be further discussed in the second year of the project		
E.	Reproduction		
E.1.	In E.U. and for other users	20 sets 50 sets	'85 '86
E.2.	Lecture-room		
	(1) VHS + monitor TV (for 50 students)	2 sets	'86
	(2) U-matic, VHS (PAL, SECAM, NTSC)+video projector	1 set	'86
F.	Additional AV equipment (1) power source stabilizor for AV console (2) AV cable (3) spare parts (4) multi tester (5) osciloscope (6) camera pattern box (7) video test signal generator (8) audio test signal generator (9) vector scope (10) wave form monitor (11) maintenance tool and case (12) video and audio cassette tapes	1 set	

U-matic	20'	400 pcs
	30'	300 pcs
	60'	100 pcs
VHS	30'	500 pcs
	60'	500 pcs

audio cassette	60'	100 pcs
audio tape		4000 m

(13) cleaning tapes
(14) video tape eraser
(15) air-conditioner for studio
(16) literature, manuals

4.2. Computer technology in the project

4.2.1. Use of computer technology in the project was assessed as feasible. As it is explained in the Master Plan (p.44-46) the computer technology used in the continuing education for PHC will be based on microcomputer systems in different configurations:

BASIC CONFIGURATION:
- Central Processing Unit (CPU), 16-bit processor, 256 Kbytes RAM,
- 5 video displays, monochrome with graphics capability (CRT),
- 2 Floppy discs drives, $5\frac{1}{4}$ inch,
- Printer, dot matrix, at least 1oo characters per second with graphics capability.

COMPLETE CONFIGURATION:
- CPU, 16-bit processor, 512 Kbytes RAM,
- 1-2 CRT, (video display) multicolor graphics,
- 6 monochrome video displays
- Hard disc. drive, 10-20 Mbytes,
- Floppy disc drive, $5\frac{1}{4}$ inch,
- Printer, dot matrix and/or daisywheel, at least 100 characters per second, with graphic capability,
- Random-access slide projector (RASP).

MULTIUSER MICROCOMPUTER INSTALATION: - Proposed up to 10 video displays (monochrome) with floppy discs, Mbyte Ram, 100-200 Mbyte hard discs and 2 printers.

4.2.2. In the first year of the project 1 complete microcomputer configuration will be installed in the Centre of production and implementation of the software and coursware system will start (possibility by obtaining it from different Medical Schools in Japan) and development of our own programmes (pilot production).

In the next phase microcomputer systems would be installed (a new configuration, depending upon progress in computer field) in other units so that the network of CAI users in PHC would spread into other four regional centres in the SR of Croatia.

4.2.3. For CAI coursware development needs the training of one person from the Yugoslav side is foreseen in Japan for 3-6 months in the course of the first year.

4.3. Additional equipment (priority for 1985)

- 1 word processing unit
- 1 copying machine

Dr. Masatomo Tati

Leader
Implementation Survey Team
Japan International
Cooperation Agency, Japan

Dr. Berislav Skupnjak

Director
Centre for Health Cooperation
with Non-Aligned and Developing
Countries

ANNEX A

MEDICAL SIMULATORS FOR PHYSICAL SKILL LABORATORY

(proposal)

IMPROVED SPINAL INJECTION SIMULATOR

CATHETERIZATION SIMULATORS (male and female)

PROSTATE EXAMINATION SIMULATOR

BREAST EXAMINATION SIMULATOR

EAR EXAMINATION SIMULATOR

MULTIPLE CAUSALITY SIMULATION KIT

IV INJECTION

CPR AND EMERGENCY MEDICAL TRAINING MANIKIN

FEMALE PELVIS MODEL

INTUBATION MODEL

資　料　4

Plan of Implementation

A. Stampar School of Public Health
Medical School, University of
Z a g r e b

Institute for Organization
and Economics of Health
Z a g r e b

as members of

CENTRE FOR HEALTH COOPERATION WITH NON-ALIGNED AND
DEVELOPING COUNTRIES

PROJECT: CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

PLAN OF IMPLEMENTATION

- DRAFT OF THE FIRST ANNUAL PLAN -

Zagreb, July 1984

revised Nov. 1984

（注：本資料は資料(3), Memorandum にもとづき調査団帰国後日本において資料(8)に修正を加えたものである。）

PLAN OF IMPLEMENTATION - FIRST YEAR

OBJECTIVES

1. Organization of the Educational Media Centre for PHC (Centre)

2. Identification, mobilization and organization of users

3. Adaptation of premises and instalation of equipment

4. Preparation of educational materials

   a) audio-visual educational materials

   b) computer educational materials

5. Training and personnel management activities, ensurance of staff competence and performance

6. Development of the Project evaluation system and evaluation of the first year activities.

PROJECT ACTIVITIES RELATED TO THE OBJECTIVE 1

1.1 Legal and other regulations of the position and relations of the Centre

- provision of work licence
- regulation of relations among involved institutions
- formation of management bodies
- formulation of internal rules and regulations

Staff responsible: Project director, project secretary, project coordinator

Duration: 3 months

1.2 Formation of the task forces:

- recruitment and employment: -job descriptions
  -recruitment procedures
  -personnel records
  -induction

- the organization of task forces and support
  -logistic support (working space, essential working tools)
  -communications and consultation, definition of teams
  -supervision

Staff responsible: Project director, principle investigator, project coordinator, educational programmer, project secretary,

Duration: 6 months

1.3 Formation of communication system within the country and abroad:

- administrative (addresses and files)
- technical

Staff responsible: Project secretary, coinvestigator, project coordinator, educational programmer

Duration: 6 months

1.4 Initiation of cooperation with similar systems in our country and abroad (Japan)

- learning about similar Centres and search through literature
- selected visits
- formation of their directory and files

Staff responsible: Principal investigator, educational programmer, technical manager, computer technical manager, project secretary, coinvestigator

Duration: 6 months, to be continued

1.5 Formation of communication and information system and administration within the project

Staff responsible: Project director, project secretary, project coordinator

Duration: 3 months

1.6 Detailed programming and plan of implementation of the project

Detailed programming and plan of implementation of the project will be developed and proposed by the Project core working group (PCWG) and discussed and approved by Joint Coordinating Committee through correspondence or in meetings.

Staff responsible: Project core working group: project director, principal investigator, coinvestigator, educational programmer, project coordinator, technical manager, project secretary, computer technical manager

Duration: 3 months

1.7 Budgeting activities:
- mobilization of financial resources from various national sources
- programme budgeting and accounting

Staff responsible: Project director, project secretary

Duration: 6 months, to be continued

PROJECT ACTIVITIES RELATED TO THE OBJECTIVE 2

2.1 Identification of users:

(see "Preliminary survey: 2. Identification of users")

Staff responsible: principal investigator, coinvestigator, educational programmer, project secretary

Duration: 4 months, to be continued

2.2 General information of users about the new form of continuing education

- general advertising (writing materials and meetings with representatives of institutions)

Staff responsible: coinvestigator, project secretary educator, field promotion officer

Duration: 6 months, to be continued

2.3 Organization of users

- preparation of administrative relations of users in cooperation with the Association of health working organization (institutions).
- preliminary screening of premises and candidates for different field activities ("fields educators")

Staff responsible: coinvestigator, educational programmer, educator, project coordinator, project secretary

Duration: 6 months

PROJECT ACTIVITIES RELATED TO THE OBJECTIVE 3

3.1 Reconstruction of premises for the Centre

(see Annex in which an architectual design of the basement floor of the A. Štampar School is given, from which tentatively the northern and eastern parts are forseen to be used for the Centre)

- technical documentation
- construction works and acoustic isolation of walls
- power supply and cable distribution
- microclimatical adaptation

Staff responsible: technical manager, video technical engineer, project secretary, project coordinator

Duration: 9 months

3.2 Transportation, installation and pilot work

- transport (C.I.F.) of equipment
- installation of equipment into specially designed premises:
  a) video equipment
  b) computer equipment
- pilot work

Staff responsible: technical manager, video tehn.ing., computer technical manager, computer programmer, project secretary

Duration: 6 months

PROJECT ACTIVITIES RELATED TO THE OBJECTIVE 4

4.1 Definition of needs (see "Preliminary survey: 1. Identification of needs").

-Elaboration of methodology of establishing of needs out of already existing sources
-Analysis of existing ("classical") forms of continuous education in PHC
-Identification and selection of priorities

Staff responsible: educator, educational programmer, principal investigator, coinvestigator

Duration: 3 months, to be continued.

4.2 Preparation of audiovisual educational materials (programmes)

4.2.1 Preparation of concepts of the first three educational kits

(see "Preliminary survey: 3 patterns of production of educational materials")

Tentative titles:

1. Selfcare
2. Physician-patient communication
3. Emergency intervention

Staff responsible: editorial board

Duration: 2 months

4.2.2 Formation of working groups for the first three educational kits

Staff responsible: educational programmer, principal investigator

Duration: 6 months

4.2.3 Writing synopsies for the first three educational kits

Staff responsible: editorial board, consultants and experts in working groups

Duration: 6 months, to be continued

4.2.4 Preparation of additional texts (printed material) for the first three educational kits (booklets, handsouts, instructions, etc.)

Staff responsible: educator, educational programmer

Duration: 3 months to be continued

4.3 Preparation of computer educational materials (computing methods)

4.3.1 Acquiring of computer application software

As available through collaborative programmes with educational institutions, and by own development; implementation of software products.

Software packages should be provided for:
- computer assisted instruction (CAI),
- computer simulation,
- medical decision making.

For CAI both general software packages and custom-made special programs will be chosen, implemented and tested for their suitability for continuing education programmes.

Appropriate general software packages for continuous simulation will be developed for use with micro-computers and the possibility of introducing discrete simulation methods at microcomputer system will be explored.

Decision making in medical diagnostics, based on artificial intelligence principles, will be introduced both by using appropriate existing expert systems and by implementing the PROLOG language if an appropriate interpreter and/or compiler shall be available.

Staff responsible: computer programmer (editor), computer technical manager, educational programmer, educator

Duration: 9 months, to be continued

4.3.2 Conceptual design up to 3 consumare products chosen from the CAI themes.

Staff responsible: computer programmer (editor), computer technical manager, educational programmer

Duration: 6 months

4.3.3 Development and implementation of software for support to the project management

- for registers
- for evaluation
- for administration

Staff responsible: computer programmer, coinvestigator, project secretary

Duration: 6 months

4.4 Initiation of electronic library and design of the way of functioning:

Staff responsible: educator, librarian

Duration: 3 months, to be continued

PROJECT ACTIVITIES RELATED TO THE OBJECTIVE 5

5.1 Training of technical staff assisted by Japanese experts in Yugoslavia.

Staff responsible: technical manager

Duration: 1 month

5.2 Training of the project staff in Japan

- technical manager
- video technical ing. (editor)
- educational programmer

Duration: 2-3 months

5.3 Training of technical staff in various institutions in the country

- for shooting
- for computer programmers

Duration: 2-3 months courses

5.4 Training of the first group of field educators:

- training of field educators for cooperation management of programme of continuing education in the units of users

Staff responsible: educational programmer, educator coinvestigator technical manager, field promotion man

Duration: 1-2 month

PROJECT ACTIVITIES RELATED TO THE OBJECTIVE 6

6.1 The Project evaluation system will be developed and applied to the first year of the project.

Staff responsible: principal investigator, director and other members of the PCWG.

Duration: 3 month (last three months of the first year)

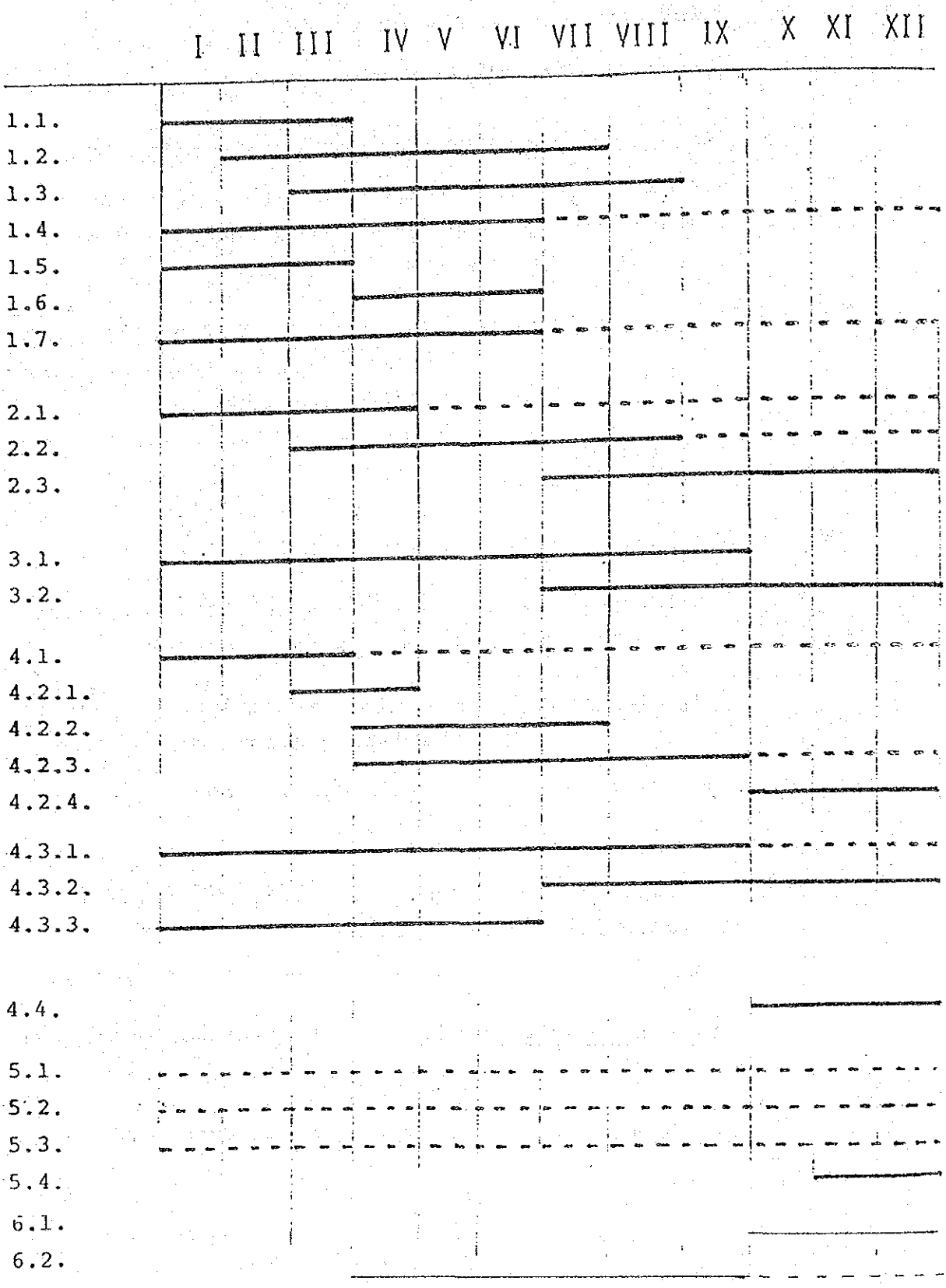
6.2 Elaboration of methodlogy for the feedback and evaluation of first materials:

- general design, design of analysis, testing

Staff responsible: educator, educational programmer, principal investigator

Duration: 6 months, to be continued

TIME TABLE


MONTHS
ACTIVITIES
I II III IV V VI VII VIII IX X XI XII
1.1.
1.2.
1.3.
1.4.
1.5.
1.6.
1.7.
2.1.
2.2.
2.3.
3.1.
3.2.
4.1.
4.2.1.
4.2.2.
4.2.3.
4.2.4.
4.3.1.
4.3.2.
4.3.3.
4.4.
5.1.
5.2.
5.3.
5.4.
6.1.
6.2.

STAFF QUOTED IN THE FIRST YEAR PLAN OF IMPLEMENTATION

Project director
Principal investigator
Coinvestigator
Educational programmer
Technical manager
Project coordinator
Project secretary

Educator
Video technical engineer
Computer programmer
Field promotion officer
Librarian
Typist

Editorial board
Consultants

資　料　5

Continuing Education for Primary Health Care

A. Štampar School of Public Health
Medical School, University of
Z a g r e b

Institute for Organization
and Economics of Health
Z a g r e b

as members of

Centre for collaboration with non-aligned
and other developing countries

CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

28 January - 6 February 1984.

MINUTES OF THE MEETING OF THE JOINT
WORKING GROUP
28 January - 6 February

Saturday, 28. 01. 1984.

20.15 - Arrival and accomodation in
Hotel "Esplanade"

Sunday, 29. 01. 1984.

City tour

Monday, 30. 01. 1984.

9.30 - Meeting with F. Redžepagić, General
Director of the Republic Administration
for Technical Cooperation (Dukljaninova 3)

Following the introductory words by Dr. Skupnjak, F. Redžepagić introduced the representatives of the Institute while Dr. Suzuki introduced the Japanese representatives.

Dr. Suzuki pointed out that this is the second visit of the survey-team to our country whose aim was to further actions for the preparation of the project proposal. He hopes that the project will be successful and will be carried out according to plan. Besides, this will be the first project in the field of health that Japan has ever had in an European country.

Mr. F.Redžepagić, director of the Institute, described the work and role of the Institute in the realization of the technical cooperation. He pointed out that Yugoslavia is giving special significance to collaboration with Japan which is developing successfully from year to year. He especially stressed the fact that this is the first collaboration with Japan in the field of health and that it will be of benefit for both sides.

Japanese delegation: Jun-Ichi Suzuki
Akitsugu Ojima
Mikio Hashimoto
Masaru Umeda
Nobukatsu Nakajima

Yugoslav contributors:

Faruk Redžepagić
Želimir Jakšić
Karmela Krleža - Jerić
Miroslav Mastilica
Mladen Mitak
Gordana Pavleković
Marija Rusan
Berislav Skupnjak
Pero Strpić
Dubravko Šmigmator

11.00 - Meeting with dr M.Radmilović, Chairman of the Republic Committee for Health and Social Welfare (Ul. 8 maja 42)

Both sides introduced the members of their teams. Dr Radmilović was presenting specificities of the Yugoslav Health Care and Educational Systems to Japanese delegation.

Prof.Suzuki and Ojima presented certain aspects of health care and educational system in Japan. Furthermore the health care priorities and educational problems were disscussed.

Japanese delegation: Jun-Ichi Suzuki
Akitsugu Ojima
Mikio Hashimoto
Masaru Umeda
Nobukatsu Nakajima

Yugoslav contributors:

Mladen Radmilović
Želimir Jakšić
Božidar Gavazzi
Karmela Krleža - Jerić
Miroslav Mastilica
Mladen Mitak
Gordana Pavleković
Berislav Skupnjak
Dubravko Smigmator

3 p.m. - Visit to the Centre for collaboration with non-aligned and developing countries

Dr B. Skupnjak presented the Centre - as the intra-country network of health related institutions whose aim is to link health institutions within the country. It plays the major role for strenghtneing the national network for health development and organizes the collaboration with other developing countries. Several members of the Centre were presented. The A.Štampar School of Public Health, Institute for Organization and Economics of Health which serves as the administrative seat of the Centre and the Selfmanaging Community of Interest (SIZ) for Health Manpower Education, the Institute

for Child hearing defects (SUVAG), the Vuk Vrhovac Institute for Diabetes.

The SIZ for Health Manpower Education is dealing with problems of planning and organization of the development and education manpower of health in the Republic of Croatia: The members of the SIZ Assembly are delegates of provider - - here the institutions dealing with education and users - - here health care institutions. Their particular interest is the problem of continuing education.

The same interest has been expressed by the Association of Health Institutions of Croatia. These two institutions are interested to parcitipate in Japanese--Yugoslav project for continuing education. Since they are both the members of the Centre they have already been included in the assessment of the motivation of health workers and health institutions for joint continuous education and to subscribe to video journal.

Japanese delegation: Jun-Ichi Suzuki
Akitsugu Ojima
Mikio Hashimoto
Masaru Umeda
Nobukatsu Nakajima

Yugoslav contributors:

Berislav Skupnjak
Želimir Jakšić
Goran Katona
Karmela Krleža-Jerić
Mirko Krapež
Miroslav Mastilica
Mladen Mitak
Gordana Pavleković
Zdenko Škrabalo
Dubravko Šmigmator
Spaso Vulić

Tuesday, 31.01.1984.

8,30 a.m. - 1 p.m. - Working session I:
- Review of documents and previous activities*

General design of the Project

Prof. Jakšić presented development and functions of the A. Štampar School of Public Health, especially its role in manpower development in primary health care. Experiences in the continuing education of health workers were sumarized. The programme of work of the A. Štampar School of Public Health as WHO Collaborating Centre for Primary Health Care was given.

The principles of Selfmanagement Communities of Interest (SIZ) in the field of health and education were described.

- Visit to A. Štampar School of Public Health, Zagreb

Departments of the A. Štampar School of Public Health dealing with postgraduate education in primary health care were visited. General Practice and Public Health Nursing (ass.prof. A. Budak) Occupational health (prof. F. Valić, prof. D. Beritić) and School Health (prof. Ž. Prebeg). The premises of the School including the space planned for the future project "Centre" were visited.

Yugoslav delegation:

Želimir Jakšić	Gordana Pavleković
Dunja Beritić	Živka Prebeg
Ante Budak	Dubravko Šmigmator
Karmela Krleža Jerić	Fedor Valić

* See Annex 1.

3. p.m. - Visit to the "Vuk Vrhovac" Institute for Diabetes Zagreb

The Japanese team was taken around the Institute by prof. Škrabalo and essentials of its work were given. Later on prof. Škrabalo and his collaborators presented the most recent activities of the Institute in the field of education in Yugoslavia and several other countries such as Japan, Kenya, Cyprus, India, Egypt, etc. Specific attention was payed to the continuous education course in Zagreb and the Bulletin "Delivery of Health Care for Diabetes in Developing Countries".

Japanese Delegation: Jun-Ichi Suzuki
Akitsugu Ojima
Mikio Hashimoto
Masaru Umeda
Nobukatsu Nakajima

Yugoslav contributors: Zdenko Škrabalo
Nikica Car
Stjepan Cukor
Maja Dragičević
Mate Granić
Goran Katona
Karmela Krleža-Jerić
Vaskrsenija Lipovac
Boris Mandić
Ivana Pavlić Renar
Gordana Pavleković
Antonija Redovniković
Boris Ročić
Branka Rubeša
Zdenka Turk

Wednesday, 1.02.1984.

8,30 a.m. - Working session II:
Educational contents and aspects*

*See annex 1.

2 a.m. - 7 p.m. - Visit to Primary Health Care Units urban and rural areas

Three Primary Health Care institutions were visited: two subcentres of the "Novi Zagreb" Health Centre and the Health Centre Samobor.

Specifities of organization of PHC delivery system in each of the Centres were discussed. Particular attention was payed to the computerized medical records system in "Novi Zagreb" Centre and the interest and existing practice of primary health care physicians, nurses and other health care workers for the continuing education.

Japanese delegation: Jun-Ichi Suzuki
Akitsugu Ojima
Mikio Hashimoto
Masaru Umeda
Nobukatsu Nakajima

Yugoslav contributors:
Ante Budak
Želimir Jakšić
Karmela Krleža-Jerić
Josip Kolaček
Slavko Lovasić
Tomo Lušičić
Gordana Pavleković

Thursday, 2.02.1984.

8,30 a.m. - 12 a.m. - Working session III:
Technological aspects of the Project*

*See annex 3

12,30 - 2 p.m. - Exceptionally the Japanese team was divided into 3 groups: (1) prof. Suzuki visited SUVAG, (2) mr Nakajima visited the Republic Administration of Technical Cooperation while (3) prof. Ojima, mr Hashimoto and dr Umeda discussed the computer technology of the project.

1. Visit to SUVAG

SUVAG activities in the rehabilitation of speach and hearing were presented.

Japanese side: prof. Suzuki Jun-Ichi

Yugoslav contributors:
Mirko Krapež
Marija Paškvalin

2. Visit to Republic Administration of Technical Cooperation

The possibilities of technical cooperation between Japan and Yugoslavia were analysed. The Yugoslav priorities were given. The principles of technical cooperation of JICA were explained.

Principles of JICA

Japan International Cooperation Agency (JICA) was formed by the government of Japan on August, the 1st 1974.

JICA is the sole government agency of Japan whose main function is to extend technical cooperation to developing countries based upon agreements reached between the Japanese Government and the governments of these countries. Such technical cooperation is designed to help developing countries in their economic and social development.

For this purpose JICA: (1) invites people from developing countries for technical training in Japan, (2), dispatches Japanese experts and Japan overseas Cooperation Volunteers (JOCV) members, (3), disptaches survey teams to help in formulating development plans and projects, (4), recruits and trains Japanese experts to be dispatched abroad, and (5) supplies necessary equipment for tehnical cooperation.

Combining into a development project the "acceptance of trainees", the "dispatch of experts", and the "grant of equipment", JICA extends integrated cooperation (known as project - type technical cooperation). JICA also extends grant capital assistance to the developing countries in building schools, hospitals and other facilties related to technical cooperation.

JICA budget for technical assistance constitutes almost 70% of Japan's total expenditures for international personal exchange.

The "Continuing Education for Primary Health Care" which currently is under development fits within the project type of cooperation.

JICA has experiences so far in cooperation with developing countries from tropical area. This project will be the first one in Europe. The bilateral contribution of such projects is not considered by JICA.

In this specific case the development of knowledge in the field of continuing education in health is expected to be usefull for both sides.

Yugoslav experience in cooperation with Japan is in the fields of fishering, field of energy, particurarly nuclear energy, ship-building, surgery (neurosurgery), forestry and industry. The cooperation was of the first type - with private enterprizes, not through agencies. Yugoslav priorities are the following: food, energy, ship building, education. The Project of Continuing Education is one of Yugoslav major interests.

Following the Japanese mission (Belgrad 1981) the Yugoslav priority list is expected to be proceeded by Yugoslav Goverment.

The formal records of discussions was specified. Records should include the specified Master Plan, with precize description of proposed contribution of Japanese experts, Yugoslav trainees, equipment and materials needed, as well as the facilities and other input by Yugoslav side. The counterpart organization in Yugoslavia has to be defined and Joint Coordinating Committee in Yugoslavia established.

Japanese side: Nobukatsu Nakajima

Yugoslav contributors:

Faruk Redžepagić
Karmela Krleža-Jerić
Luka Kovačić
Mladen Mitak
Marija Rusan

3. Discussion on computer technology of the project

Experimental use of computer in continuing education was discussed. It is expected that a good solution which enable application of computer to primary health care will be found.

During the proposed pilot study the following is planned:

1. Developing and establishing of 2 Complete Micro Computer configurations (CPU, CAT, DISC, PR, Slide projector) and 2 Micro-computer standard configurations (CPU, CRT, DISC, Printer).

2. Units for using computers in education will be located at the A. Štampar School of Public Health, Medical School University of Zagreb, and in one peripheral unit (e.g. Health Centre "Novi Zagreb").

3. The expanding of the computer hardware during 5 years is due to successful application.

4. Developing of CAI courseware packages (software) for the continuing education is planned.

Participants

Japanese delegation: Jun-Ichi Suzuki
Akitsugu Ojima
Masaru Umeda
Nobukatsu Nakajima

Yugoslav contributors: Djuro Deželić
Miroslav Mastilica
Silvije Vuletić
Dubravko Šmigmator

3 p.m.

4. Visit to the Medical School*, University of Zagreb

Prof. dr Lj. Čečuk, Dean of the Medical School introduced the present representative of the Medical School, Board of Management and described the structure of the Medical School and existing educational programmes. He stressed the activities of the Medical School in the field of the continuing education. He also expressed interest at potential contributions of the Medical School to the Project and satisfaction with the fact that the project will open further collaboration between Japan and Yugoslavia in the field of education applied to health care.

Prof. Suzuki introduced members of the Japanese aelegation and summarized work done in preparation of the proposal of the Master Plan. In discussion which followed a good mutual understanding was reached on many aspects of continuing education, especially for PHC workers.

Japanese delegation: Jun-Ichi Suzuki
Akitsugu Ojima
Masaru Umeda
Nobukatsu Nakajima

Present members of the Board of Management

Ljubomir Čečuk

Dunja Beritić
Zdravko Lacković
Branko Richter
Milan Škrbić
Ivan Vinter
Slobodan Vukičević

Želimir Jakšić
Karmela Krleža-Jerić
Miroslav Mastilica
Mladen Mitak
Dubravko Šmigmator
Gordana Pavleković

* another member of Centre for Health Cooperation.....

Friday, 3.02.1984.
8,30 a.m. - 6 p.m.

Working session IV:

Administrative and Organizational Aspects of the Project.*

1. The work so far and the records of meeting were discussed and amended.

2. The principle of Master Plan needed and the ways of proceedings with project proposals were explained by the Japanese experts (for details see the records of the meeting in Republic Administration for Technical Cooperation.)

3. The group was then divided. The Yugoslav side finalized the draft of Master plan while the Japanese side specificed the main objectives of project proposal, gave suggestions on future activities to be taken and comments on the proposed Master plan.

Saturday, 4. 02. 1984.
10 a.m. - 2 p.m.
Final working session and protocol formulation

1. Analysis of the Draft of Master Plan was done with agreement that it will be sent to Japan (JICA, prof. Suzuki, prof. Ojima) upon including of all comments. The deadline of its mailing is February 25 since it has to reach Japan by March. The amended proposal of the Master Plan is presented in Annex 3.

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* Annex 1.

2. The JICA will consider the Proposal at the beginning of March. Upon its approval by JICA, dr Skupnjak and another member of the Yugoslav working group will visit Japan in April 1984. During the April visit of Yugoslav team to Japan the project proposal will be further elaborated. The Japanese signer may be expected in July/August 1984. In that case the project starts in September 1984.

3. The Yugoslav part of Joint Committee was proposed while the Japanese part will be given by JICA.*

4. The Yugoslav side expressed the gratitude to the members of the Japanese Survey Team for their extemelly useful contribution, high level of understanding and expressed expertise and interest in the work in the development of the Project Proposal.

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*See Annex 2

ANNEX 1

RECORD OF DISCUSSIONS BETWEEN THE JAPANESE SURVEY TEAM AND YUGOSLAV WORKING GROUP

CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

Joint Working Group Meeting

Jan. 30. - Feb. 4. 1984.:

January 31., Working session I:

I. REVIEW OF DOCUMENTS AND PREVIOUS ACTIVITIES

General design of the project

1. The work done so far has been recapitulated. The revised version of Project Proposal and Draft Protocol were presented.

2. Principles and scope of continuing education were discussed.

2.1. The continuing education concept was analysed and defined as the education of health professionals starting when the formal education is accomplished. The continuing education does not end until the end of professional life. The continuing education was to be based on active participation of users of the system.

2,2, The project will include video and computer programs for both the continuing education and health education of the populations.

This project aims to combine the experience in education, particularly in continuing and health education of both sides Yugoslav side with the experience in computer and video technology of the Japanese side.

2.3. The continuity of the audio-video in the field of education in Zagreb and experiences were analysed. The function of the Centre for video technology was presented.

Production of a "AV Journal" and Organization of a "Video library" is forseen. The financing of the library will be organized through the Association of Health Institutions of SR Croatia by membership fee of all the health institutions of the Republic. The existing legal aspects of planned continuing educations was presented.

3. The staff of the Project was proposed. So far the Zagreb Centre has formed the staff only partially (4 full-times and cca 15 various-profiled high level consultants) with the aim to expand when the project starts. Beside the School of Public Health and the Institute for organization and Economics of Health there are several other member-institutes of the Centre involved in this projects.

4. The high qualityof all the materials has to be ensured. One of the ways to ensure the quality is to involve the potential uses of these programs into its developments.

5. The multiple use of the educational materials was discussed. There is a feeling that up to 60% of produced materials can be used with due modifications for under graduate, post-graduate, continuing education of health workers as well as for community education.

6. The draft modules for educational programs are expected to be developed based on the previous work of Zagreb group. These modules will illustrate the "software" part of the project.

Annex I.: List of contributors in second part of Session I working

Dr Jun-chi Suzuki
Dr Akitsugu Ojima
Mr Mikio Hashimoto
Dr Masaru Umeda
Mr. Nobukatsu Nakajima

Želimir Jakšić
Gordana Pavleković
Miroslav Mastilica
Berislav Skupnjak
Karmela Krleža-Jerić
Dubravko Šmigmator.
Željko Bantić
Luka Kovačić
Djuro Deželić
Mladen Mitak
Dalibor Martinis
Silvije Vuletić
Zdenko Škrabalo
Goran Katona
Živka Prebeg
Ivana Reiner

(consultants to Project from School of Public Health "Andrija Štampar", Institute for Organization and Economics of Health and Centre for diabetes "Vuk Vrhovac").

February 1st: Working session II:

Educational contents and aspects

1. The Association of Health Institutions of SR Croatia was introduced by its general secretary Ass. Professor I.Eterović.This Association is interested to motivate its member institution (the network includes all health institutions of the Republic) to actively participate in the Project in strengthening of continuing education especially for primary health care. The health institutions are willing to subscribe to the system. At the same time they will be encouraged to participate actively in the process of program production. This will ensure the financing of activities upon the termination of the project.

2. The Institute of Public Health of the Republic of Croatia was also presented as the institution which is processing the health information for the need of the Republic and proposing priority health measures.

The efforts in selfcare and mutual aid, initiated by the experts of the Institute were presented. The chronic disease patients included in selfcare groups will be the initial target group for users of this project.

3. The continuation of the discussion of the project proposal:

3.1. Users groups of this project are defined as:
- a) health workers in primary health care
- b) students to these professions
- c) workers on other levels of health care
- d) population

At the beginning the programme will be directed to the continuing education of the PHC (primary health care) workers. Later on the other target groups will be included. The PHC workers will also contribute in defing the needs and definition of contents. This group of users was illustrated by visits to three PHC units in Zagreb neighbourhood.

3.2. The educational contents will be determined by the expert group of the Project and by users using different sources of information. The evaluation of produced materials will be used for definition of needs.

3.3. The creation of educational material will be based upon the jointly selected needs. It will include the technical quality testing and applicability monitoring. This work will be conducted by the Editorial Board of the Centre.

3.4. Application of educational material

The master tape (3/4") will be copied (on 1/2") and sent to subcribers. There are two types of final copies:

a) one type will be kept by the users containing the program which will be used over and over again.

b) the other type of video tape will be returned and re-used. THis one contains the information which is rapidly changing and briefing is needed. Upon application the user will send their comments and asked to participate in the evaluation to the Centre.

3.5. Evaluation of programmes include technical quality testing, educational effectiveness testing and acceptability monitoring.

3.6. Video and electronic library

This libraray formed at Video Centre will be linked to the Library of the School of Public Health. It will contain all the master tapes.

4. Video technology in the Project

4.1. There was discussion on proposal for hardware technology.

4.2. Since the budget is formed year by year the priority has to be set in order to set anual Video technology equipment and supplies purchasing.

4.3. The budget of the project includes the inputs of both sides. The equipment and materials, Japanese experts assistance and training of Yugoslav experts in Japan are the major part of Japanese input while the facilities, personnel cost etc. are of the Yugoslav input.

4.4. The size of the pilot has to be defined based on Yugoslav specification. The choice of actual sites will be done based on Yugoslav health institutional network. It was suggested that 20% of various PHC institutions from all the regions of Croatia will be included.

4.5. The choice of equipment

The main producers of video equipment are already present in Yugoslavia and by law they had to ensure proper maintenance services (JVC, Sony, HItachi, Pioneer, Canon, etc. The official TV system in Yugoslavia is PAL system. This will facilitate the choice of equipment. All important characteristics of the system are defined in working materials VIII.

5. The use of computer technology in PHC and particularly in CAI was analysed. The pilot study and the role of computers in the Project was discussed. The financial and software problems are to be further analysed. Part of the Group visited the A.Štampar School of Public Health Computer Department.

February 2nd 1984: Working session III.

Evaluation and planning of work of the joint working group

1. The draft record of the initial discussions was analysed and corrected.

2. The final record of the meeting of the Joint Working Group is specifically defined.
The Master Plan has to include:

   1. Japanese experts
   2. Yugoslav traineers
   3. Equipment
   4. Facilities
   5. Japan - Yugoslavia coordinating committee
   6. Financial inputs of both sides
   7. Yugoslav contrapart institutions

3. The plan of action of the joint working group (Jan./Feb. 1984.)

   3.1. By the end of joint meeting the first draft of the project proposal will be prepared.

   3.2. Dr B. Skupnjak and another member of working group will visit Japan in April to proceed the elaboration of project. By that time the second draft of the project proposal has to be prepared.

3.4. The Japanese official signer will come in July or August. This team will analyse the Master Plan which has to be prepared by that time.

3.5. If all the above be done as planned the project may start in September 1984.

ANNEX 2.

PROJECT: CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

PROPOSAL FOR JAPANESE-YUGOSLAV JOINT COORDINATING COMMITTEE

28. Januar - 6. February 1984

PROPOSAL FOR JOINT COORDINATING COMMITTEE

I Yugoslav members:

1. Ivo Margan
2. President, Republic Committee for Health and Welfare (dr Mladen Radmilović)
3. Director General, Republic Administration for technical Cooperation (Faruk Redžepagić)
4. Association of Health Institutions of SR Croatia (Ivo Eterović)
5. Selfmanaging Community of interest (SIZ) for Health Manpower Education (Spaso Vulić)

Working Group:

Berislav Skupnjak
Aleksandar Meniga
Želimir Jakšić
Djuro Deželić
Karmela Krleža-Jerić
Dalibor Martinis
Miroslav Mastilica
Mladen Mitak
Gordana Pavleković
Silvije Vuletić
Dubravko Šmigmator

II Japanese members

* to be decided by JICA

ANNEX 3.

A. Štampar School of Public Health
Medical School, University of
Z a g r e b

Institute for Organization
and Economics of Health
Z a g r e b

as member of

Centre for Collaboration With Non-aligned
and Other Developing countries

CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

M A S T E R P L A N
(PROPOSAL)

February 1984.

Title of the project: CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

1. Objectives of the project

1.1. THE MAIN OBJECTIVE

The main objective is to work out and put into practice the system of continuing education of health workers especially in primary health care by electronic (video and computer) assisted technology. The continuing education is expected to improve the quality of health care delivery.
The contribution to educational technology and techniques is expected. Exchange of experience in that field is expected between two countries.

The cooperative work is significant as the collaboration between two countries to facilitate international friendship and understanding.

1.2. OBJECTIVES OF COLLABORATION

- to initiate a general and technical cooperation between Japan and Yugoslavia in the field of health,
- to exchange experiences and to learn about achievements in the health system of both countries,
- to establish professional-scientific and technical collaboration between the two health systems,
- to exchange experiences in audio-visual and computerized educational systems between the two countries and to spread them further.

1.3. IMMEDIATE OBJECTIVES

- to set up a Centre for production and distribution of educational materials for continuing education (Centre),
- to produce educational materials regularly,
- to set-up users educational network
- to work out and apply the model for follow-up and evaluation of such a form of continuing education.

2. Targets

2.1. IDENTIFICATION OF USERS

Users are health workers at various levels and certain groups in community. The major target groups are health workers in PHC. The other groups will also be included such as:
- under + postgraduate students in health care,
- workers in other levels of health care,
- general population.

2.2. IDENTIFICATION OF NEEDS

Will be done by the group of Centre including the users and other sources of information inquiry.
The feed back mechanism and other means of evaluation will be used.
The ways of identification of needs by Centre group will include all interesting group and responsible institutions such as:

1. Primary health care units,
2. Faculties and schools: Medical, Cental, Nursing, etc.,
3. Professional Associations,

4. Association of Health Institutions,
5. Self-management community of interest (SIZ) for education of health professionals,
6. Self-managing community of interest for health care,
7. Public Health Institutes,
8. Government Audit. Report
9. Various Specialized institutions (e.g. "Vuk Vrhovac" Institute for Diabetes, SUVAG - Institute for Rehabilitation of children with speech and hearing difficulties, Mother and Child Care Institute).

2.3. THE CREATION OF EDUCATIONAL MATERIALS

The creation of educational materials includes several stages:

- definition of educational objectives
  * identification of priority needs and demands of users,
  * inputs from the exports specialist in the problem area,
  * inputs from the health practitioners in the field
  * formulation and specification of objectives

- development of basic educational strategies
  * identification of knowledge, skill and attittudinal components of objectives,
  * planning strategies for reaching objectives in described components,
  * choice in methods to involve and motivate lerners (e.g. problem solving approach)

- production of video computer and other forms of presenting the subject

  * consideration of comparative advantages of different forms of presentation
  * synopsis of the chosen way of presentation,
  * elaboration of details for production
  * direction of production
  * preliminary testing and editing of materials

- development of instructions for use, feed-back and evaluation materials

The first part of the process of creation of educational materials (definition of objectives and strategies) is considered to be the most complex part of creation. The creation of video educational materials will be done using the master tape (3/4") and the number of needed copies will be done (on 1/2").

The programmes for continuing education will be developed for use by personal computer system network.

The computer educational materials will be developed in form of program pachages copied on floppy dises for use by personal computer systems.

Because the involvmenent of users has to be assured and AV material taken in circumstances corresponding to the health care activities, the production of materials will include 10-15 settings for production, use and testing of materials at the A.Štampar School of Public Health, Institutes for Health Economics and Organization of services, Central medical library of the Medical School in Zagreb and in regional centres, chosen laboratories and clinical settings of the Teaching hospital 3-5 health centres, 2-3 medical centres and 4-6 other institutes and health institutions.

2.4. (AV) JOURNAL AND ELECTRONIC LIBRARY

2.4.1. Based on produced master tapes of educational materials copies will be made for distribution to users. These copies will be distributed with printed materials and when necessary with other supporting educational materials (models, dises, pictures etc.) to prescribers and library users.

The AV Journal will have the following standard columns:

- standard procedures and facts (e.g. drugs, emergency, service, standard preventive programmes),
- professional contents and organization of work for carrying out health care measures (MCH, health care for chronic patients, worker's health care, etc.),
- model examples from practice with alternative solutiens,
- new methods of work,
- problems in the relation between physician-patient and physician-collaborators-consultants,

The AV Journal will be issued 10 times during a year. The AV Journal will be addressed in the first place to health workers in primary health care (whether to all team members or only to physicians, nurses, social worker, etc.)

2.4.2. The Electronic library will be used for storing classifying, distributing and using of educational materials. All master tapes and flexible discs with computer software will be saved together with all pertinent documentation.

This enables the educational material to be re-edited.

This library will be liason be liason the "Andrija Štampar" School of Public Health Library and the Centre.

2.4.3. Educational material printed goes independently and together with the tape - to explain and feed back.

When necessary to promote skills development.

All master tapes and flexible discs with computer software will be saved together with all pertinent documentation.

3. ACTIVITIES - 5-year plan of work

Based on agreement the Japanese side will start with equipment provision. This will be done based on jointly developed priority list of equipment. Simultaneously, the Yugoslav future experts will start their education in Japan. It is suggested that approx. 2-3 Yugoslav may go to Japan annualy. Japanese experts are foreseen to train Yugoslav technicians and experts in Yugoslavia as well.

The Yugoslav side will prepare the facilities of the Centre. They will also choose and recruite the full-time and part-time staff. The Centre will also organize the users network find the ways to encourage the health Centres to subscribe to the Library.

4.1. VIDEO TECHNOLOGY IN THE PROJECT

4.1.1. Explanation

Based on their rich experience in continuing education in health and analysis of needs and objectives, experts for education have come to the conclusion that the TV-media, singled out from the institutionalized TV production and adapted to needs of the health system, has great advantages for the realization of the suggested bilateral project. The application of the TV-media would inaugurate a system which would anable education without teaching staff, shaping of information in a way which would arise greater interest in users, and the accessibility to staff in remote or smaller health institutions. One of the more appropriate solutions is considered to be the application of VIDEO-technology, which through the video tape, transfers information, and thus creates all preconditions for an optimal realization of educational objectives.

That is why we are considering our own video-casette production adapted to needs of a well-conceived and continuing education in health.

We have, therefore, discussed basic technical--technological aspects of video-casette production regarding the configuration of the system, and necessary minimal equipment and staff.

Technical-technological requirements

Based on their needs for the realization of the project on education in health, the experts for education have given technical-technological requirements to experts

for electronics as a starting point for shaping the technical system which will offer optimal technical--technological support to the planned project. According the given requirements the technological configuration of the system for video-casette production must enable:

1. Studio shooting
2. Shooting on location
3. Picture and sound editing /video and audio/
4. Transfering of films and slides
5. Transfering from and to other TV standards
6. Reproduction
7. Simple distribution
8. Qualitative presentation and reproduction
9. Safe and independent exploatation and maintenance.

The whole system should be adapted to needs in health and should act as an integral part of the health system. Regarding equipment and staff, the system should be so conceived as to enable its independent work full efficiendy in application.

According to present estimates the whole video--casette production should ensure 6-8 hours of educational programme every month which would be multiplied in about 500 copies a month. The configuration of the system should be so shaped as to give the possibility of enlarging the production, i.e. to increase the number of taped casettes in accordance with the increase of interest and needs of users.

Concept of the video-system

The whole concept of the planned video-system is based on given requirements and it represents, in the

realization of the project, the unique technical--technological entity adapted to needs of an efficient realization.

Therefore, the following is suggested:

A. TV and video standards

1. Use of the PAL system as the officially accepted system in Yugoslavia
2. Shooting on 3/4" format and distribution on commercial 1/2" format
3. Shooting and editing on the U-matic H/BVU/ level
4. Reproduction and distribution on VHS /75%/ and Beta /25%/ system
5. Transcoding from and to other TV standards

B. Shooting

1. Portable ENG Color cameras with three saticon tubes 2/3" with additional equipment for studio shooting
2. Complete sound editing in the field and studio
3. Mobile and stable lights

C. Transport

1. Two vehicles suitable for transport of equipment and staff

D. VIDEO editing /postproduction/ final processing

1. Complete shooting and assembling on U-matic H /BVU/ format with equipment for special video-effects, etc.

2. Reproduction with electronic control of U-matic master tapes on 15-20 video recorders of 1/2" format
3. Reciprocal transcoding to other TV standards
4. Transfering of existing educational films

E. Production team

1. Director, camera-men, video and audio mixers
2. Technical manager and electronicians for equipment maintenance

F. Premises for the studio

1. Reconstruction of premises which would acoustically and microclimatically be adjusted for the whole equipment and video production /4-5 premises/

G. Development of AV educational system

With a view to adequate extanding, improvement and permanent modernization of the proposed AV method which according to the existing knowledge, should make possible an optimum realization of continuous health education, during the process of realization of the project, permanent introduction of new and modern technological achievements in the VIDEO-technology field is being planned, such as new audio and visual recording methods (for example lasser technology), their editing and presentation, as well as other innovations in the field of Audio-Visual aids technology.

The dynamics of introducing of modern and more adequate equipment will be realized on the basis of evaluation and new needs showing up in the course of the realization of the project and the level of development of applicable modern electronic aids suitable for continuous education and necessary for the successful realization of the project.

4.1.2. PLAN OF IMPLEMENTATION 1 YEAR

1. CAMERAS

3x VIDEO CAMERA 3 x 2/3 inch Saticon-tubes with GENLOCK "ENG" - studio configuration
+ accessories

- 5" viewfinder
- colour encoder
- horizontal & vertical detail corrector
- dolly tripod
- intercom
- remote camera controls
- etc.

3x VIDEO CAMERA - Commercial type (one tube)
2x b/w camera CAPTION
4x b/w camera REMOTE

2. EDITING UNIT

5x Editing recorder U-matic "H" (BVU)
(slow motion, freeze etc.)

2x U-matic "S" recorder (PAL, SECAM, NTSC)
Digital time base corrector
Special effect generator/switcher
Chroma key
Computer for graffic animation
Character generator, Lights (stable) etc.

3. AUDIO EQUIPMENT

Complete sound editing in the field and studio

- Studio taperecorder
- Recordplayer
- Studio Mixet
- Portable mixet
- Microfon set (different)
- Loudspeakers
- Intercom. etc.

4. MONITOR/RECEIVER (Trinitron)

10 x 82 cm
3 x 68 cm
5 x 52 cm
3 x 10 cm (portable)
3 x 33 cm (portable)
2 x Quadruple Picture Monitor
1 x Large screen monitor (130-182 cm)

5. REPRODUCTION EQUIPMENT

20 VHS - Videorecorder + receiver

6. VIDEO - CASSETTES - U-matic

300 x 20 min
400 x 30 min
100 x 60 min

7. ACCESSORIES FOR EFP APPLICATION

2x Portable BVU recorder
2x Portable VHS recorder
4x Mobile light systems
4 x Portable taperecorder + mixets

2x Portable tripods
10x Battery
2x Battery case and belt

8. VIDEO TRANSFER SYSTEM (video taking, through regular microscopes operating micro scopes, fibroptics etc.)
Video Camera - Microscope
Video Film Transponder (16/8 mm film/telekino)
Video - dia positiv
Transcoder pal - NTSC - SECOM

9. TECHNICAL DESIGN OF INSTALLATIONS

10. STUDIO
8x Air-condition for studio application

11. ADDITIONAL EQUIPMENT

1. cables
2. spare parts
3. maintenance equipment and tools
4. literature, manuals etc.
5 · VHS Cassettes

2 YEAR

DUPLICATING SYSTEM
Reproduction with electronic control of U-matic master tapes on 15-20 video recorders VHS of 1/2 inch format

USER'S EQUIPMENT
Equipment for VIDEO presentation
50 x videorecorders VHS
50 x TV receivers
1000 x VHS - cassettes

EXTERN COMMUNICATIONS
Slow scan system (receiver, transmitter)

4.2. COMPUTER TECHNOLOGY IN THE PROJECT

4.2.1. Explanation

The role of the computer in continuing education in primary health care is nowadays of crucial importance because of its enormous capability to provoke creative thinking during the educational process. This is especially enhanced by the possibility of continuous evaluation of this process. It is even stated that medical informaties, a discipline on the use of computers in health care, has the potential for major contribution to primary health care in computer aided instruction, and the success of the primary health care approach will depend upon having sufficient numbers of appropriately trained staff (W.J. Towle, "The Role of Informaties in Primary Health Care, Draft 2, WHO/ISS/83/28). The existing hardware options enable the application of both the individual and group teaching methods. Many of the characteristics of modern computer systems, as e.g. their interactive features, their patience in monitoring the student's knowledge and skills, and the fast spreading of personal computers in private and professional life, add to the popularity of using computer methods in continuing education.

The growing use of computers in education depends to a great extent on the development of appropriate educational programs (courseware) and of computer software. Because of a variety of existing software products, both in the academic and commerical sphere, reflecting a great number of new ideas, innovations and applications, the efficient use of computers as education tools can be greatly facilitated and enhanced by collaboration with others working in this field and by supporting the transfer of software technologies among the educational centers at the international scene.

Among various fields of computer application in continuing education, those are envisaged as the most promising: computer assisted instruction, medical decision-making, and modeling with computer simulation. The computer assisted instruction is a well established teaching method where the computer acts as a teacher both presenting information and checking the student's advance. Medical decision-making develops rapidly as a new device for everyday medical work in solving problems of diagnostics, therapy and health care organization and operation. It can be used only by intensive personal involvement of the physician or any health worker, thus learning of this methodology appears to be among the most important tasks in continuing education of health professionals, enabling them both to develop or to use such expert systems. Modeling and simulation techniques are most suitable in medical and health care systems analysis giving the student the opportunity to understand and explain various processes observed in everyday practice, enabling him to play simulation games of diverse complexity in dependence of his knowledge and invention.

Besides of the use of computers as educational tools, the importance of the computing methods for other parts of the working process in continuing education in health care has to be emphasized. Here the continuing need for the production of education documents, the tracking of the education processes in the organizational sense and the evaluation of results achieved asks for use of computer facilities.

Having in mind the potentialities of technological development both in the fields of computing and video communication one has to think of future developments based on the direct connection and possible amalgamation of both technologies with a favourable influence on the advance and improvement of the education process.

4.2.2. The computer technology used in the continuing education for primary health care will be based on microcomputer systems.

The basic configuration of a microcomputer system in the Project should contain:

- Central Processing Unit /CPU/, 16-bit processor, 256 Kbytes RAM,
- Video display, monochrome with graphics capacility /CRT/
- 2 Floppy discs drives, 5 $\frac{1}{4}$ inch,
- Printer, dot matrix, at least characters per second with graphies capability.

In order to enable best educational results and to adapt the microcomputer systems to the particular needs of medical continuous education, a complete microcomputer configuration should contain:

- CPU, 16-bit processor, 512 Kbytes RAM,
- CRT, multicolor graphics,
- Hard disc. drive, 10-20 Mbytes,
- Floppy disc drive, 5 $\frac{1}{4}$ inch,
- Printer, dot matrix and/or daisywheel, at least 100 characters per second, with graphic capabilitiy,
- Plotter, multicolour,
- Random-access slide projector /RASP/.

The RASP unit is normally not a standard hardware component, but here a solution is envisaged as described in the papar: T.Akatsuka, T.Kubo, M.Hori and M.Matsuda, A CAI System Between Lecture and Bedside Learning in Undergraduate Medical Education, MEDINFO-83, Proceedings 4th World Congress on Medical Informatics, Amsterdam 1983, North-Holland Publ., pp. 1053-1056.

In the educational centre a multiuser microcomputer installation is proposed with up to 10 video displays

/monochrome/ with floppy discs, 1 Mbyte RAM, 100-200 Mbyte hard discs, and 2 printers /dot matrix and daisywheel/. This configuration would allow group teaching practice and should be especially useful for evaluation purposes.

Both the basic and the complete configurations are envisaged to be used as stand-alone systems for single-user practice.

The system software packages needed should include:

- operating system,
- BASIC and Pascal compilers,
- word processing software,
- graphics software.

4.2.3. PLAN OF IMPLEMENTATION

COMPUTER EQUIP. IN CENTRE	1. Year
2 Complete Micro Computer Configurations: CPU, CRT, MPRD, DISC, FLOOPY DISC, PRINTER, SLIDE PROJECTOR	
2 Micro Computer Standard Configurations CPU, CRT, FLOPPY DISCS, PRINTER	
1 Multi user system (10 CRT, FLOPPY DISCS, MARO DISCS	2 Year
3 Complete Micro computer configurations	3 Year
3 STANDARD Micro Computer configurations (CPU, CRT, FLOPPY DISCS, PRINTER)	
ADDITIONAL EQUIPMENT	
3 Word Processing units	1 Year
3 Copying mashines	
Clinical skills laboratory equip.	
2 typewriter	2 Year
1 station wagon	
16 mm Filmprojector	
8 mm Filmprojector	
5 x Dia-projector	3 Year
1 pick up truck	
SUPPLIES AND EDUCATIONAL MATERIALS	1 Year
Professional literature (books and journals	
Education software (foreign production)	
Video Modules	2 Year

5. APPLICATION OF EDUCATIONAL MATERIALS

Application of educational materials is following existing forms of continuous education, mostly regular by month to meetings in small groups. The materials will be prepared so that individual and repeated use will be possible. Instructions for use will be added to the material "Technical training for application of materials as well as training in group education methods for educators, from different groups of users are planned.

The technical aspects are as follows:

Video

There are two types of video material: one is for single use and the other is for several (continuing) use. The tape containing the first type of the programm will be used and returned so that the tape can be re-used. This one contains the information which is rapidly changing and briefing is needed. Upon application the user will send their comments and evaluation to the Centre as well. The tape containing the programm which is to be used several times will be kept by the users.

Computer

The computer software will be applied in several types of educational tasks: in computer assisted instruction, in training decision making by computers, and in developing computer models with performing simulation games. The software will be available to the user on floppy disc.

6. EVALUATION OF THE PROJECT

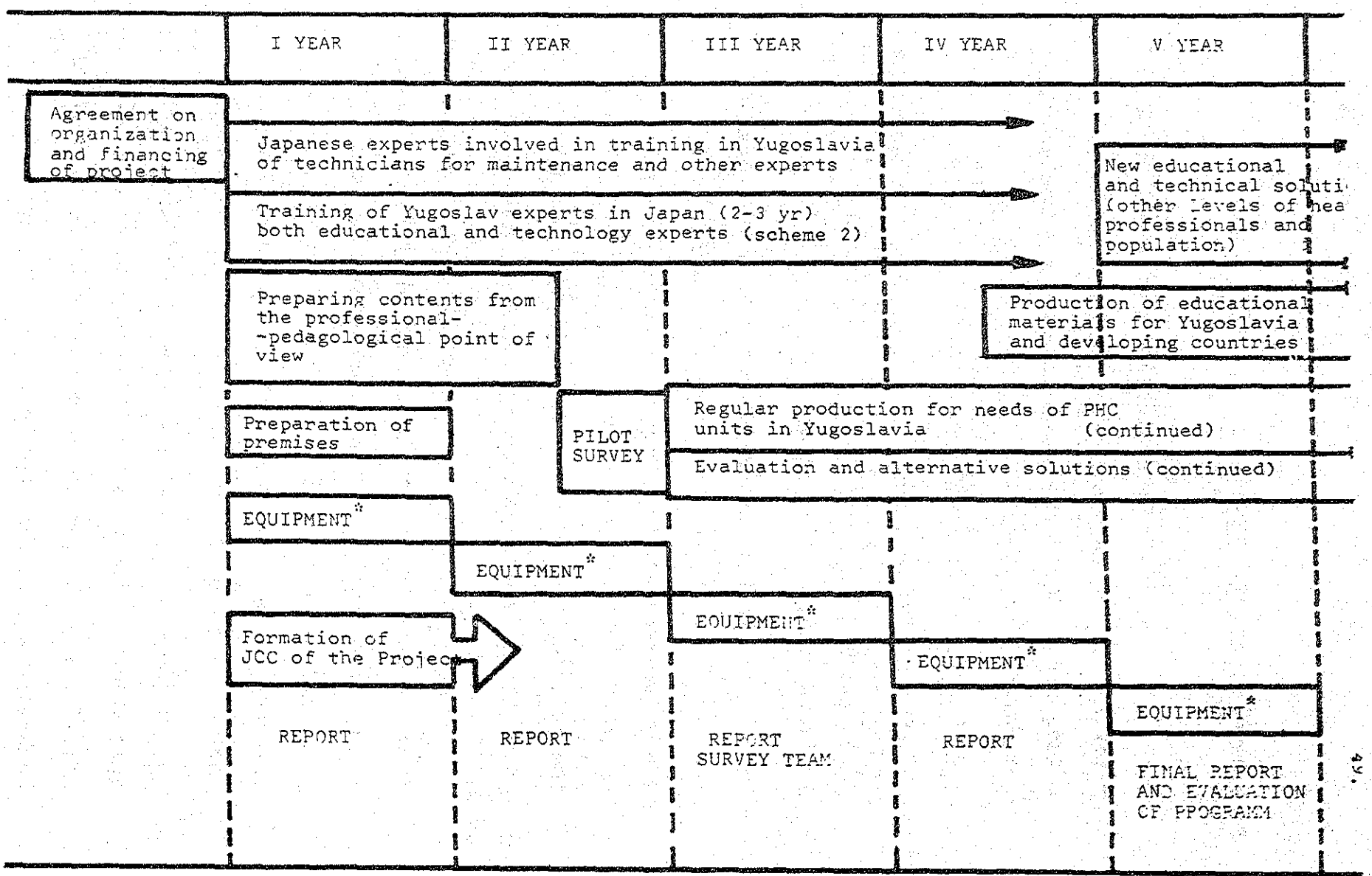
Besides the evaluation of the educational materials (which is previously described and which makes part of the educational material production process) the evaluation of the effects of the project as a whole is also planned.

The evaluation of the project's effects will be organized in stages planned for the implementation of the project.

In the process of evaluation the most important will be to observe the acceptance of the system from the part of users, to analyze users' opinion of the usefulness of the system, to monitor the introduction of chosen measures and procedures in practice after completed education (tracer method).

The task of evaluation is also to assess the degree of the implementation of the planned programme in the selection of contents, in the active role of potential users, in the continuity of activities, in the acceptance of group methods of education from the part of different groups of users, in the comparison of immediate effects of different methods of information dissemination (video, computer, printed material and other methods) through a built-in feedback mechanism and in the cost/benefit of different educational methods and strategies.

SCHEME 1 ACTIVITIES



PROJECT ORGANIZATION CHART