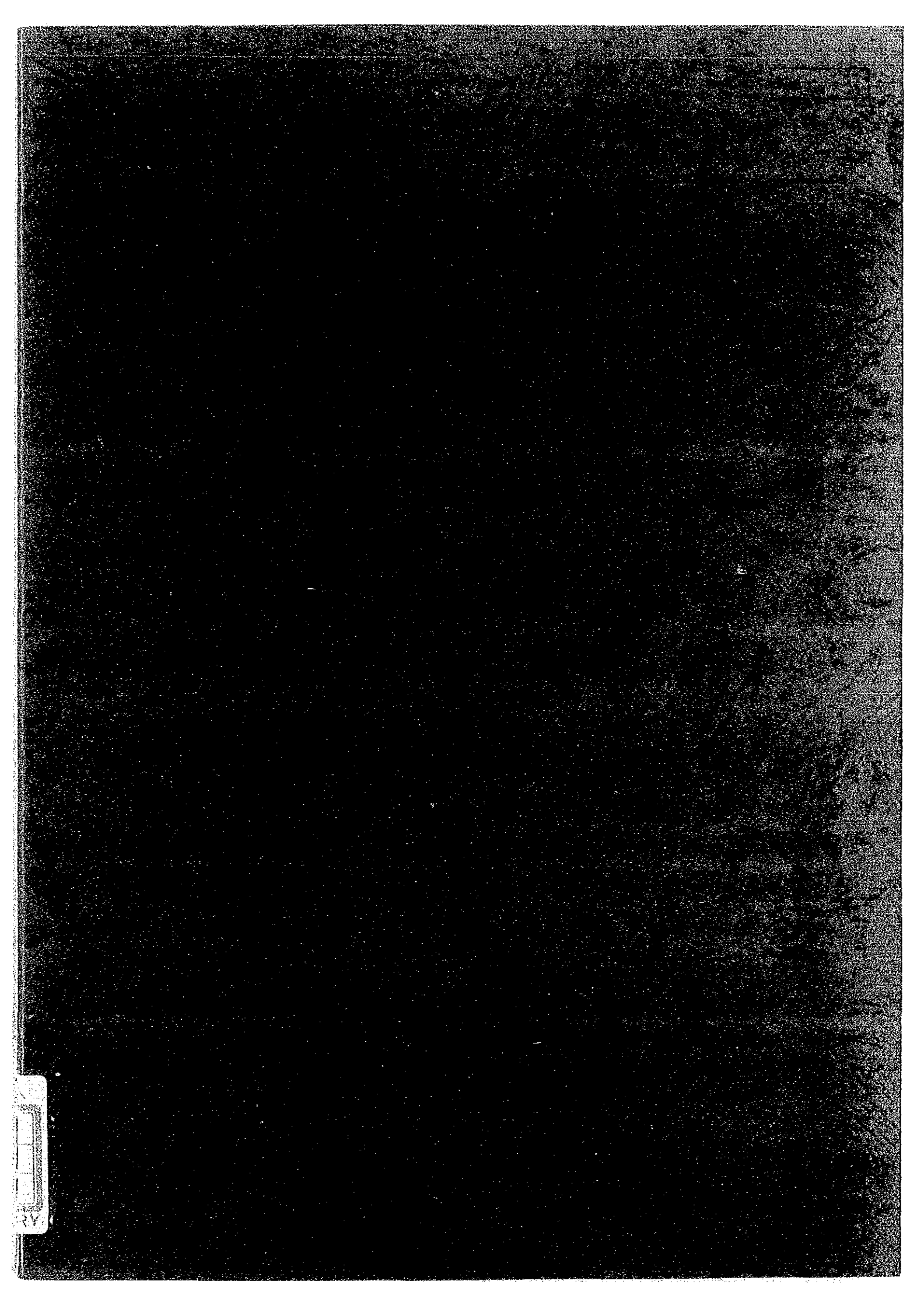

ユーゴスラビア国

ＰＨＣ生涯教育プロジェクト

専門家チーム報告書

昭和６０年１２月

国際協力事業団
医療協力部

ユーゴスラビア国PHC生涯教育プロジェクト専門家チーム報告書

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ユーゴスラビア国ＰＨＣ生涯教育プロジェクト専門家チーム報告書―昭和60年９月

Ⅰ　専門家チームの構成と日程

鈴　木　淳　一	帝京大学医学部教授（耳鼻咽喉科）
Dr. Jun-Ichi SUZUKI	Professor of Otorhinolaryngology, Teikyo University School of Medicine
小野寺　伸　夫	国立公衆衛生院衛生行政学部長
Dr. Nobuo ONODERA	Director, Department of Public Health, The Institute of Public Health
久保田　了　司	（財）ＡＶＣＣ事務局長
Mr. Ryoji KUBOTA	Executive Director, Audio Visual Consutant Center (AVCC)
加　藤　宏	ＪＩＣＡ医療協力部
Mr. Hiroshi KATO	Medical Cooperation Department, Japan International Cooperation Agency (JICA)

日　程

８月２５日(日)午後	小野寺 Dubrovnik 着(KLM287)	Hotel EXCELSIOR
８月２６日(月)午前	サマーセミナー参加(Hotel PALACE)	
午後	〃	〃
８月２７日(火)午前	〃	
午後	〃	〃
８月２８日(水)午前	〃	
午後	〃	〃
８月２９日(木)午前	〃	
午後	鈴木，久保田 Dubronik 着(YU393)	〃
８月３０日(金)午前	サマーセミナー参加	
午後	歓迎昼食会	
	INTER－UNIVERSITY CENTER 見学	
晩	FOLK DANCE	〃
８月３１日(土)午前	サマーセミナー参加	
午後	フリー	〃
９月　１日(日)終日	フリー	〃

9月 2日(月)午前		Dubrovnik発(YU893)	
		Zagreb着 (〃)	
		Hotel ESPLANADE にて ISTRA 地方視察打合せ	
		Dr. Skupnjak, Dr. Jaksić, Mr. Mastilica	
		Mr. Vulić, Mr. Skrbić	
	11:30	Hotel 出発(車にて) Mr. Vulić 同行	
	17:00	Pazin PHC Center着, 視察	
		Director Dr. Bartolc	
		Dr. Ante	
		Mr. Joksan	
	20:45	Poreć Hotel MATERADA着	Hotel MATERADA
9月 3日(火)	8:30	Poreć PHC Center 視察	
		Director Mr. Radolović Livio	
		Dr. Kostan	
		Dr. Basanić	
	11:00	Hotel DULFIN Station 視察	
	午後	Portoroz 見学	Hotel MATERADA
9月 4日(水)	9:00	Buzet PHC Center 視察	
		Director Dr. Kratcar Ailtoć	
		Dr. Vlado Bjelajac	
		Dr. Ztaobo Grzuic	
		Mr. Karlo Cerovac	
	10:30	新設工場内 Station 視察	
	11:00	Livade Station 〃	
	12:00	Riviera Turist リューマチ治療センター 視察	
		(Istarske Toplice)	
	13:00	Roc Station 視察	
	14:00	Hum 見学	
	16:00	Hum 発	
	(16:00	JICA 加藤 Zagreb着)	
	18:00	Opatija にて休憩	
	23:30	Zagreb着	Hotel ESPLANADE

9月 5日(木)	9:00	A.Stampar School にてディスカッション Dr. Jaksić, Dr. Krleza-Jerić, Dr. Pavlekovic' Dr. Vulić, Dr. Mastilica, Dr. Dedzelić, Mr. Skrbić	
	16:00	Novi Zagreb PHC Center にて ビデオデモンストレーション	
	20:00	答礼夕食会	Hotel ESPLANADE
9月 6日(金)	9:00	the Republic Administration for Technical Cooperation ミーティング Mr. Redzepagić, Mr. Strpić, Mrs. Mladineo, Dr. Jaksić, Dr. Skupnjak, Dr. Pavlekovic', Dr. Eterović, Mr. Skrbić	
	10:30	A. Stamper School にてディスカッション 9月5日 午前のミーティング出席者+Dr. Skupnjak	
	13:30	Dean of Medical School University of Zagreb Ph. Dr. Ljubomir Čečuk 表敬訪問	
	14:00	歓迎昼食会	
	16:30	Center SUVAG 視察 Prof. Dr. Peter Guberina Prof. Marija Paskvalin	Hotel ESPLANADE
9月 7日(土)	9:45	Zagreb 発 (JU703)	
	10:30	Belgrade 着(〃)	
	11:30	天羽民雄大使公邸 表敬訪問	
	18:30	大使館主催 夕食会 江口公使 佐藤一等書記官 福本二等書記官	Hotel METROPOL
9月 8日(日)		フリー	〃
9月 9日(月)	16:05	ベオグラード発 (SK740) コペンハーゲン経由帰国	

Ⅱ　専門家チーム派遣の目的

昭和59年11月26日本プロジェクトに関するR/D及びメモランダム調印が行なわれ，専門家チームの派遣，研修員の受入れ，機器の供与などについての計画立案が開始された。すでに，昭和60年8月より2名の研修員が受け入れられ，同時に機材供与に係る手続きも進められている。今回のチームの派遣は今後の活動の本格化にさきだって，プロジェクト枠組そのものの確認，機材など受け入れ態勢などユーゴ側準備状況の視察，機材とくにVideoシステムワーク具体化の最終計画，教育評価法についての案作製などを目的として行われたものである。

すなわち，日本側専門家チーム派遣の目的は，

1)　PHCサマーセミナーへの参加

2)　評価法を含めたプロジェクトの枠組に関する協議

3)　ユーゴ側の進捗状況（特にセンターの工事進捗状況）の確認

に要約されるが，具体的には派遣をされた専門家の成果を次の4項目に分けて報告することができる。

1)　International Seminar on Technology in the Primary Health Care Systemへの参加 ― 8月26－31日，ユーゴスラビア Dubrovnik で開かれたセミナーに，小野寺が全面的に参加，かつ講演した。日本側チーム訪ユーゴの期間と重なりあっていたことと，本プロジェクトとの関連が深いということで，ユーゴ側の要請にもとづいての参加である。ユーゴ側のプロジェクトチームの主要メンバーと日本側チーム（加藤を除く）との最初の接触が，ここにおいて行われた。

2)　Educational Unit(EU)の視察ークロアチア共和国の北西部 Istria 地方の3つのヘルスセンターならびにヘルスステーションなどを訪問し，それぞれ特徴ある活動状況，プロジェクトへの協力態勢なども視察した。

3)　両国プロジェクトチーム全メンバーの接触は，Zagrebの A. Stamper School of P. H. において，加藤の参加をえて，4名全員の日本側チームと，ユーゴ側チーム（資料1）とによっておこなわれた。具体的には，次の6項目になった。

3－1)　Educational Media Center for PHC工事・内装の進行状況の視察と修正提案

3－2)　Educational Unitの選択

3－3)　プロジェクト計画のうち，とくに評価法に関する提案

3－4)　ビデオ活用のデモンストレーション

3－5)　プロジェクトの今後約一カ年のスケジュール，打合せ

3－6)　クロアチス共和国技術協力庁訪問

3－7)　その他(General Hospital of Dr. MI. Stojanovic, Zagreb, のProfessor Padovanおよび，Center SUVAG-Zagrebの Professor Guberina 訪問)

Ⅲ 結 果 報 告

Ⅲ－1) International Summer Seminar on Technology in the Primary Health Care Sytem への参加（小野寺）

1. まえがき

今日，世界的な課題であるP.H.Cの充実をはかるため，それら技術との関係について討議すべきセミナーが，1985年8月26日から31日までユーゴスラビアのドブロヴニクで開催された。主題名は Technology in the primary health care system である。本セミナーはTechnology in the health care systemの諸セミナーの一環として開催されたもので，Institute for Social Medicine, Statistics and Health Research,School of medicine及びAndrija Stampar School of Public Health-School of Medicine,Zagrab が主催している。開催されるにあたり，学術誌や関係機関の連絡を通じユーゴスラビアのみならず諸外国の参加を求めてきたものである。主催者の要請に基づきセミナーに参加し，課題についての発表を行うとともに Plenary session に参加し討議がなされた。

本セミナーはユーゴスラビア国 P.H.C 生涯教育プロジェクトの責任を有するAndrija Stamper School of Public Health-School of Medicine, Zagreb と特に関係も深いことと，P.H.Cの充実，発展につながる極めて重要な課題にせまりうることからも小野寺がセミナーの全日程に参加した。

2. 参加者及び参加国

参加者は別添（資料２）の51名でスウェーデン，フィンランド，アメリカ合衆国，エジプト，ユーゴスラビア，日本の６ケ国にWHOの欧州地域事務局が参加した。P.H.Cに関する医学者，経済学者，疫学者，薬学者，工学者，理学者，行政官等多彩な顔ぶれであった。

3. 開会及び報告概要

1985年8月26日 Dubrovnik, Hotel Palace にて午前10時から開会された。

R. Tomović (Prof. Faculty of Electrical Engineering) は開会にあたり，25年前からシステムについて討議がすすめられ，技術が人間の幸せにどうつながっているかの見方からも主題の意義を述べた。

ひきつづきWHOを代表してA. Wahba （欧州地域事務局コンサルタント）は21世紀に向うスローガンとしてかかげたP.H.Cについての見解をのべ，特にP.H.Cは Health に関する新しい知見ではなく，システムとしてのとらえる努力の過程であることを示唆した。

本セミナーの主催者の代表してV. Cucić (Prof. School of Medicine, Beograd)はP.H.Cについての技術がなぜ検討されなければならないのか，いまなぜP.H.Cを求められているのか，なぜ，技術の論点があるのか，なにが技術なのかについて基調講演を行った。

P.H.Cについて技術として保健行動，生活と労働の条件，疾病の予防，診断治療リハビリテーションの４点をあげP.H.Cの基本となる８要素について別添（資料３）の通り掲げた，P.H.Cの

基本要素は地域の住民参加によって展開されうるものであり，社会経済文化の多面的な機能であることを指摘した。また，P.H.Cの概念についてもその位置する諸条件によっても多様であるが，このセミナーを通じて問題解決への努力がなされるとともに，発展途上国においてP.H.Cが出発点となっている状況に大きな影響を与えうるものとしている。

以下，各発表者の発表概念は次の通りである。

1) Keller M.D.: An Epidemiological Approach to P.H.C Planning

疫学の見地から疾病問題をとらえる標準について述べ，重症度の度合，慢性疾患におけるライフ・スタイルの違い等からケース・コントロール研究のあり方を述べた。

2) Wahba A.H.W: Appropriate technology and correct utilization of test in the health laboratory

臨床検査技術の活用において環境の条件をどうとらえ，どのような疾病にせまりうるのか，どのような人材をとらえるかどのような合意を形成するかについて述べた。

3) Jaksić Z.: Needs for New and Adapted Technology in P.H.C

技術は単なるテクニックでなく社会経済文化政治を包括する観点からみた至適な技術の活用について，その必要性，継続性，種別，知識，状況等について述べた。また，優先度を決定するにあたって各機関との連けい，質の管理，標準化する条件の検討を通じ，バランスのとれた対応が重要であるとした。

4) Weed H.R: Technology Needs in P.H.C

患者の変化や生存条件の変化からニーズに適用した活動，経費，さらに問題決定におけるトレード・オフについてのべ，どのような種類の，どのような機能の，さらにどのような能力のものなのか，どの程度の経費を要するのか，どのような支持があるのかの問題把握について述べた。

8月27日は次の報告がなされた。

5) Borgenhammar E.: Decision Making in P.H.C in a Tight Economy

人間が死にいたる病気にかかったとき，どのような洋服を着たがるのか，このような見方に立ったニードというものもあるのではなかろうか。P.H.Cにおいてもプロフェッショナル群が求めるものとノン・プロフェッショナル群の求めるものとの格差をどうとらえていくのか，問題解決について保健経済学者の立場をふまえながらも技術のあり方，環境モデルのとらえ方，ライフ・サイクルからみたダイナミックな接近等について述べ，コスト・ベネフットについてのあり方，人間行動の変容について見解を示した。

6) Doknic-Stefanovic D: Multicriteria Decision Making in P.H.C

学校保健の立場から児童の健康についてどのようなクライテリアがあるのかについて述べた。

7) Keller G.B.: Communication Systems in P.H.C

コミュニケーション・システムについてのミス・ユース，オーバ・ユース，アンダー・ユースについての見解をのべ，ＰＨＣにおける集団対応における戦略，潜在要件の把握，展望的ケーア

のあり方からコンピューター使用によるデーター活用について述べた。

8) Onodera N: Socio-Technological Development in the P.H.C System

別添（資料４）の資料に基づき主にP.H.Cおける基本論点としての包括的なアプローチ，システムとしてのケア，地域保健医療活動，政策決定と優先度，保健医療資源の配分と連けいについてのべ，P.H.Cにかかわる教育，計画，情報システム等を報告した。

9) Zivkovic M.: Cost-effectiveness of Early Detection in P.H.C

早期発見方式に基づく疾病の重症度別の費用効果を発表した。

10) Rund D.: Emergency Medical Services and P.H.C

救急医療における医師・地域の関連について述べた。

11) Stvauss R: Sports Medicine as an Avenue to P.H.C

スポーツの種類によって健康を促うものも少なくなくそれらを例示した。またスポーツによる作業条件の改善中ハンデキャップを有する人々の健康増進の意義について述べた。８月29日には次の報告がなされた。

12) Vrhovac B: Pharmaceuticals in the Praxis of P.H.C

薬学の立場からＰＨＣの政策，教育，情報システム，カーバレイジ，支援システム，合理的な医薬品のあり方，地域アプローチについて発表した。

13) Skrabalo Z: Technologial needs in Laboratory Services for P.H.C

代理として Gordana Pavlekovic によって発表がなされた。糖尿病管理における一次，二次，三次レベルの役割と臨床検査の質管理について述べた。

14) Bicknell W. J: Technology from Developed to Developing Counties

健康増進における人間行動の変容の観点から保健活動の個人レベル，地域レベル，国家レベルの意思決定が大切であると指摘した。

15) Skupnjak B: Meaning of Appropriate Technology for P.H.C

技術におけるソフト面を重視し発展途上国のもつ特性や先進国における課題の違いに立った手法，知識，有効な技術，執行の展開を重視している。それらは学際的な意味をもつものであり，社会目的や計画，組織それらに特別なシステムをどうとり入れて発展させるかについての見解を示した。

16) Dezelić Dj: Microcomputer Technology for P.H.C

マイクロ・コンピューターをP.H.Cの実際的でどの程度活用すべきか，なにを期待すべきかについて述べた。また，これらのネットワークのシステムについての見解をのべた。9月30日には次の報告がなされた。

17) Smedby B: An Information System for Epidemiological and Evaluation Studies at the Tierp Health Centre in Sweden

この間別途協議があり途中から発表をきいたが，情報システムにおけるデーターベースの活用，

連絡，協調の意義をのべ，保健センターの実際面で年間多数の論文報告を行っていることを示した。

18) Ratodic M.: First Steps in Computer application by G. P

パーソナル・コンピューターの第一段階での活用としてのデーター蒐集，解析等を述べた。

19) Isokoski M: Development of Diagnostic Technology

尿検査に基づくシステムを体系化し，Uriglx paper の活用に基づき Galoctocemia の診断と管理について発表した。

20) Bozinovic Lj: Diagnostic Procedures for Coronary Disease in GPS Office 心疾患の予防と治療に及び管理について発表した。

以上 20 人の発表がなされた。総じてP.H.C の基本問題について多様な報告と討議がなされ，P.H.C についての政策論，計画のあり方，システム化，技術適用における諸問題，社会経済効果，さらにP.H.C の実際面としての健康づくり，疾病予防，診断治療，リハビリテーションの諸体制，疫学の活用，教育訓練の実際面にせまりうるものと理解している。

4. Parallel Group Session 活動報告

本セミナーはP.H.C についての報告発表のみならず，参加者各員が次の 4 課題について分科会をもち，P.H.C の基本問題に関する討議がなされた。

(1) Health Promotion, Preventive Measures, Life Styles, Self and Lay Care and Communication, Cemmunity Participants　11 人

(2) Diagnostic Procedures, Epidemiology, Screening, Laboratory Needs　8 人

(3) Therapeutic Procedures, Emergency Services, Home Treatment, Continuous Care 8人

(4) Organization, Information System, Decision Making　18 人（小野寺が参加）

結果としては(2),(3)分科会は当初別々であったが統合された。討議は，27 日 9:00～12:30 まで，16:30～19:00，28日16:30～19:00，29日16:30～19:30 に行われ 31日9:00~12:00 に総括発表がなされた。

第 1 分科会については Health Promotion, Self-Care, Health Protection, Community Participant の 4 点について主に検討がなされ，それぞれの責任のあり方，個人として，地域社会として，政府としてどうとらえるかの見解が示された。このさいどのような技術が，どのような方法で，どのような臨床試行をふまえているのか，さらにアセスメントの機能をどう位置づけるかの論議がなされた。

これらは，P.H.C として推進するに，フォローアップの体系づけと，地域活動としての社会教育，スポーツ振興との関係と地域住民の合意形成が基本として重視すべきものとしている。医療を受ける側，供給する側にとって，Medica Care Addiction の存在に注目するとともに，より健康へのプロセスをしっかりした内容で発展することの重要性が述べられた。

第 2 分科会第 3 分科は統合し，国の政策健康教育，情報システム，治療サービスのニーズ，

P.H.Cの支援機能としての中央化と分権化，臨床検査X線検査機能の配分位置づけ，ルーチンの薬品管理と配分方式，救急医療，新技術の採用方針，調整機能，継続医療，例えば透析サービス外来診療技術とその評価，情報伝達，研究，簡易なる方式によるスクリーニング，疫学的接近についての検討がなされたことが述べられた。

第4分科会は，P.H.Cのおける技術は社会，経済，文化，政治と密着に関係するものであり学際的な立場での討議が一層重要であることの見方に立った検討がなされた。組織機構のあり方としてP.H.Cは他機関との充分なる連系の上に，独立性をもった基本的位置づけについての見解が好ましいものとしている。また，発展のための手法や知見，新技術開発にともなう対応，情報システムやコンピューターの活用，人材の確保と育成，技術の限界と経済効果分析等の諸問題の検討がなされた。

各分科会報告を統括する立場から座長のCucic'は本セミナーが極めて効果的にすすめられたことに感謝するとともに，P.H.Cにかかる検討は本セミナーですべて完了するものでなく，引続き討議されるものであることを示唆して終了した。

本セミナーを通じて云えることはP.H.Cがまさに今日的な重要課題であり，その見方もあり方も多様であるだけに，より弾力的な発想と，長期展望をふまえた活動が計画としてとらえ着実な歩みをもつことこそ重要である。それらを確かなものとするための人材の確保と育成に期待すべきものが大であるとき，本セミナーの発展した体系づけが生れいずるものと志向している。

Ⅲ－2) Istria地方のEducational Unit(EU)視察（小野寺・鈴木）

1985年9月2日から同月4日までIstria半島地域におけるP.H.Cセンター等を視察し関係者との意見交換を行ったが，それらの概況は次の通りである。

(1) PAZIN·P.H.Cセンター（所長Dr. Bartolic Antel）

当地域全般の概況は別添（資料5）の資料通り，Istrian半島の中央部ないし北東部に位置して全体の地域人口は19,412人，人口密度35.7/km^2/人である。当P.H.Cセンターの人口は約4,500人で，面積532km^2を有し，典型的な農村コンミューンの一つである。老人人口の占める割合は高く，60才以上は20％以上であり，死亡率は人口1,000対9台である。

P.H.Cにかかわる優先度としては，母子保健，学校保健，及び慢性疾患対策が重視され，それらの活動が包括的にすすめられている。

計画は，各々の分野で具体的に考慮されたものを全体で包括し協力体制の上に実施がはかられる努力がなされている。また，企業関係の保健対策もこれらの活動の中に包括されている。

また，保健対策を総合的に進めるにあたって各階層からなる協議会が指導助言がなされ，各保健チームが自己のもつ責任を総合的な保健活動計画の位置づけをもって実施にあたっている。

今日，最も重視すべき課題は老人層の家庭保健を基調とした活動で，医療社会事業関係者との連けいの上に問題解決に当っている。

問題点としては産業保健につながる理学療法士の確保，医薬品供給システムのあり方があげられるほか，医療における患者と医師の人間関係の充実などをあげている。

P.H.C活動について基本となる条件としての予防と診療の一体化や地域・学校・職域を包括する計画，母子保健，臨床検査，歯科保健など協調しうる立地条件を有し活動がなされている。なお，今後に期待すべきものとして，特にP.H.C活動を教育指導しうる人材の育成充実が必要視されている。

(2) Poreć・P.H.Cセンター（所長Dr. Radolic Livić）

当地域は海岸に面した景勝地であるとともに，リゾート地域であり，特に夏季には1日最高約100,000人，年間約800,000人の旅行客が訪れ，その85％は外国人である。

地域面積は350㎢で，常住人口は約21,500人であるが，シーズン中は常住人口の5～6倍の旅行客が訪れ，多数のホテル等観光施設を有している。P.H.Cセンターには27人の医師，その中20人が専門医師，9人の歯科医師，9人の薬剤師を有している。

機能的にはプライマリの体制のみでなく，セカンダリーの役割をも演じているセンターで，ターシャリーについてはPulaのメディカルセンターと連系している。

保健対策の最大課題は旅行者保健にかかわることで，13人の医師2人の歯科医師等からなる特別班を組織し，ホテルの一部に診療施設を開設し業務に当っている。

また，救急医療としては，常勤30人を有し，24時間体制をしいている。

地域の一般的な保健活動としては8コミューンに7地域施設を設備し，法制共にもとずく活動はもとより，住民保健の基本となる諸活動を進めている。住民の保健要請と住民の保健水準の把握につとめており，主要死因の第1位は心疾患，第2位は悪性腫瘍，第3位は事故である。有病状態の第1位を呼吸器疾患，第2位は胃腸障害である。乳児死亡率は出生1,000対16.5，死亡率は1,000対10.5と比較的高いのは他からの移住者が多いことに起因していると説明している。

当地域の人口は海岸部に集中しており，また観光地であることから検疫業務もセンター業務活動の一環である。さらにリゾート地域として，スポーツが活発であり医学上のケーアが求められている。

疾病問題としてリスクの高い課題は高血圧，神経症，及び肥満であり，これらの対応としても主要疾病減少計画と産業保健上からの科学的健康診断の充実が求められ，それらの努力が進められている。

本地域は特殊な条件を有する立地を有するだけに，地域保健活動と学際的なTourists Medicineの方向づけが求められ，海洋医学，熱帯医学，予防医学，スポーツ医学，救命救急等を包括する体制との協力関係の充実が一層期待されている。

(3) Buzet・P.H.Cセンター

当地域は面積240㎢，人口7,500人で10の小地域からなり山岳地帯の立地を有している。10年前は発展途上地域であったが，今日，地域振興が進められ，従来の典型的な農山村地域構造を

有する社会から変貌しつつある。金属鉱業や自動車工場の誘置により企業で働く労働者は約3,000人で農業従事者の2,000人を上回っている。しかし，地域社会における老人の占める割合は極めて高く，地域保健所等の重要課題である。また，山岳遠隔地に在住する老人も多く，ホーム・ケアや地域保健ステーションの整備など各般の施策を行うべく努力がなされている。また，企業の立地とともに，産業保健も包括的になされており，それらに必要な施設も設備されつつある。

地域には16人の医師，4人の歯科医師，2人の薬剤師等がおり，他地域同様，包括的な保健体制にもとずく医師，看護婦等からなるチームが組織化され活動がすすめられている。

各チーム活動は短期，中期，長期の計画を立て毎3ケ月ごとに報告し，スタッフ全体による討議をかさね，総合的な保健計画として位置づけられ活動がなされている。

二次的なケーアを要する場合45㎞離れたRIJEKAの二次センターと連絡協調するほか，専門医師の出張診療もなされている。

小地域や企業，学校等の保健医療は総合された体制を基本としてなされているが，保健活動の本質につながる自己管理について指導が重ねられている。

当地域は地域振興とともに若手層の地域離脱がくいとめられ，またUターン現象もおきている。老人層の占める割合が高く，主要疾患としては高血圧，糖尿病，リューマチ，緑内障等があげられる。老人層の医薬品についてはセンターから医療社会事業関係者との連けいをとるなど供給に工夫がなされている。また，電話などの活用による住民指導もすすめられている。

山岳地で典型的な農山村地域構造をもつこの地域に長寿者が極めて多いことは注目に価する。現在104才と101才の女性があり，80才以上の老人が，615人を教え，考え方によっては，世界的な長寿社会の一つと云っても過言でないと思う。かような地域社会が地域振興計画の推進によって，どのような変化を示すのか社会医学的な重要な考察点でもある。

地域に在住する人々との接近と，自己管理との調和が重要であり，P.H.Cの本質的な課題を有している。

また，この地域の施設として自動重工場ヘルス・ステーション，Livade アンブーランス・クリニック（人口約1,100人），ROCアンブーランス・クリニック（人口約1,000人）及び本センターの直轄ではないがユーゴスラビア全体として位置づけられているRiviera温泉医学センターを視察した。温泉療法としてラジューム泥塗布，温治療法等が専門医師の管理指導のもとになされており，特にリューマチ治療として重要な役割を果たしている。

Buzet・P.H.C センターは地域住民の保健要請にこたえるべき最適な計画の策定，アクセスビリティーをより高めるアンブランス・クリニック活動及び住民の自己保健管理，家庭看護に関するフォローアップ・システムなど今後一層期待すべきものも多い。また，長寿な保健プログラムづくりが可能であると志向している。

Ⅲ－3) 日・ユ両国プロジェクト・チームの協議など

Ⅲ－3－1) Educational Media Center for P.H.Cの工事進行状況（久保田，加藤）

打合せ日時：9月5日(木) AM11:00～PM1:00

出席者：(ユーゴ側) Mr. Mastilica (Stamper School of P.H.)

Mr. Smigmator (Institute for Organinization and Economics of Health)

Mr. Zerjavic (Zerjavic radna organizacija za Projektiranja 設計事務所)

(日本側) 加藤（JICA）

久保田（AVCC）

工事の現状：昨年11月にAVCCのスタッフ2名（久保田，茂木）が派遣され，現場での打合せの後，帰国後建築的指示を図面化して送付した。それに継き，最近になってユーゴ側で改築工事を開始したところ，当初予定していた北側の部屋では，天井高MIN. 3,200㎜が確保できない事がユーゴ側で判明した。従って工事は中断し，同フロアの西側の部屋に変更してこれから工事を再開する状態にあった（この部屋であれば，天井高が3,200㎜確保できるとのことであった）。

主な打合せ内容：西側の部屋に変更する事について問題がない旨回答した。但し，新しい部屋の建築図に沿って，再度細かい指示図面を日本側で作成し，送付する事とした。打合わせ内容と，図面化する主な内容は，次の通り。

- 照明器具用配管図（配管までユーゴ側工事とする）
- 照明器具取り付けレール配置図（この図面に基き，ユーゴ側で一般照明を設置する）
- MICその他用配管図（配管までユーゴ側工事とするOUTBOX，ワイヤリング，コネクターは日本側工事とする。コネクターはXLRで統一する。配管は吸音材の中とする。）
- スタジオ用クーラ配置図（クーラー用貫通孔及びクーラー室外機保護はユーゴ側工事とする）
- 調光器及びトランス（1：1）の配置図（ユーゴ側にて設置場所への電源工事を実施する）

Ⅲ－3－2) Educational Unit(EU)の選択（小野寺，加藤）（別添資料6参照）

P.H.Cの生涯教育をすすめるに当って，保健関係職員の教育訓練とともに地域住民の保健教育の接近が重視されねばならないことから次の諸点について協議がなされた。

(1) 教育技術の側面

保健教育に必要なソフトの開発，使用者の適切なる行動，教育機能の充実及び教育の場の設定など

(2) P.H.Cの将来展望としての意思決定の側面

住民の健康向上，診療体制の充実にさいしての社会的機能，個人の動機づけ及び経済的支持をうながす意思決定が有効に働きうる教育活動の展開など，これらの側面を確かなものとするためには供給者と使用者及び受益者との相互間の交流と理解が必要であり，視聴覚機材の有効活用はもとより，適確な情報把握に必要なデーターベース，カーバレージの測定，フォローアップ等にコンピューター活用が日常的になされた方が望ましいものとする意見が出された。

また，住民参加による保健活動を積極的にうながすためには

(1) どの程度の技術を，どの対象に提供しうるか

(2) どのような進行管理のもとに運営をはかるか

(3) どのような活用に対する評価を設定するか

など，の検討がなされた。

このためには，P.H.Cの教育ユニットの中央センターとしてサグレブ大学公衆衛生院に設置される視聴覚センターはその中核的役割を果たすとともに，地域における保健センターは保健ワーカー等の教育訓練の充実をはかる場として考慮され，更に，住民に対する積極的なアプローチとしてモビール・ユニットによる教育システムが必要であるとの見方に立った。

この考え方は，これまでの，すえつけ型を115地域のうち候補として名のりをあげている65地域にすえつける発想から新たな発想への転換でもある。しかし，P.H.Cの基本方針としては極めて重要な考え方と理解してよい。

モビール・ユニットを設定するに当っては，視聴覚機材が携帯型であり，しかも安定したすえつけが可能な条件において自動車運行をはかる必要がある。また，地域に浸透する場合，故障による使用不能は重要な問題となり信頼感を損なうことも少なくないことから，補修機械，予備機械の設定が必要である。

これらのモービル・ユニットはモデル的な活用として，中核センターからプライマリ・セカンダリーの健康センターはもとより，各地公民館等を使用した活動で十分なカバーレジをあげ効果的に推進することが基本である。また，住民のミラー効果をあげるためにもモビール・ユニットが日常活動でもとりあげられる必要性のあることは当然である。

従って，モービル・ユニットをパイロットとしてとりあげられる場合の社会経済的条件や配分の方針など当然考慮されねばならないし，日常活動とのくみあわせにおいて，

(1) どの程度の機材を供給するのか

(2) どのような活用方針で行うのか

など，具体的に検討すべきことである。

従来の発想を発展的に方向づけるものであり，予算上の考慮や制限も十分検討する必要がある。地域の拡がりをより大きくし，必要なソフトの適確な整備，運行管理における人材の訓練指導，住民参加体制の変更など，P.H.C生涯教育における計画と実際的な運営，さらにそれらの評価が求められる基本的な内容を具備するものであり検討に価する方向である。

Ⅲ－3－3) プロジェクト評価法に関する提案（鈴木，小野寺）（別添資料7参照）

P.H.Cワーカー，すなわち，医師，看護婦らをはじめ，各種保健活動の従事者，さらには患者家族をも含めた対象は大へん広範囲である。ニーズに確実にマッチさせたVIDEOプログラムを，それぞれに断えまなく提供しつづけることは至難の業に近い。ユーゴチームは，問題の困難性を各レベルで捕えて，２，３の具体的提案をしている。すなわち，AVマテリアルにfeed-backを“built-in”すること，AVマテリアル作製の段階にformative evaluation(形成的評価－フィードバックのための評価）をおこなうことなどである。feed-back-built-in に関しては，新しい知識，技術の提供・デモンストレーションの他に，problem-solvingを含めることを提案しているが，これについては，multiple “correct” Solution の扱いなどに注意すべしとしている。

ビデオテープの作製段階におけるformative evalnationは，「authorの主張がどれほど尊重されるか」という問題にからんで，これまた慎重な実施が必要となるが，極めて重要な提案というべきであろう。提案にはinvolvement of usersあるいは，internal testingなどと表現されている。これらの具体化はいろいろの方策が考えられるが，日本側から，製作段階でのモニターシステムの活用を提案した。ユーザーの参加意識向上のねらいも期待できると考えたからである。

Disease-staging(J. Gonnella)は，疾患の重症度の変化をみることにより診療の質を測定するものであるが，P.H.Cプロジェクトの成果の評価に利用することができるとの考えから，日本側から提案した。重病疾患・高頻度疾患を選んで活用する可能性をユーゴ側が検討することになった。

なおその他，プロジェクトの科学的側面（“Scientific Aspects of the Project”）についてもユーゴ側より提案があった（資料８）。

Ⅲ－3－4) ビデオ活用のデモストレーション（久保田）

はじめに

ユーゴ側には現在，AV機材がほとんどないため，具体的事例（ハード・ソフト両面について）を紹介する目的で別添リスト（資料９）の機材と，次のようなソフトウエアを携行した。

- 『Audio Visual Communication Today & Tommorow』
- 『Audio Visual Production Series Partl －Planning & Writing Script－』

（医学教育関係）

- 『Production Technique for Medical A-V Education For Doctor's Study』
- 『　　〃　　For Nurse's Study』
- 『　　〃　　For Population's Study』

しかしながらユーゴ側税関で機材関係が，滞在期間中に通関できず，残念ながら，当初用意したデモンストレーションは実施できなかった。そこで，ユーゴ側よりの提案もあり，ユーゴ側が用意したポータブルカメラとVTRを使って次のようなデモンストレーションを実施した。

日　時　　9月5日(木)PM4：00～7：00

場　所　　Novi Zagreb Dugave P.H.C Center

内　容　　① 上記センターの女性ドクターが幼児の診断を行っている場面を収録する。
（10分程度）

② その映像を再生した後，全員でグループディスカッションを実施する。

即ち，VTRの活用の大きな特長である「鏡効果」を利用して，収録した実例による問題提示を行い，それについて全員でグループディスカッションを実施する手法を行ってみた。この手法はVTRの活用としては，作品を制作したりするのと違い，大がかりな準備や高度な技術力を必要とせず，手軽に行なえるので，ユーゴ側に対する初めてのデモンストレーションとしてはそれなりの効果はあったと思われる。

Ⅲ－3－5) 供与機材の仕様の見直しなど

今回の派遣による視察並びに協議を通じて，供与機材の仕様について，若干の見直しが必要と思われる。内容は次の通り，

① EUに配布するTV，VTRセット

当初はP.H.C Centerに設置する目的で，20″モニターTVと据置型VHSVTR及びキャスター付台という仕様になっている。しかし，視察したIstra地方での話しでは，車に積んで巡回しながら使用する頻度が相当考えられる事から，・運び易くする　・移動に耐えうる保護を施す必要がでてきた。

そこで，次のように仕様を変更する事とした。

- モニターTVのうち，10セットは小型化（10～15インチ程度）し，ジュラルミンのケース等に収納する。
- その他のモニターTVは仕様通りとし，キャスター付台をつける。
- VHS・VTRはすべて，持ち運び易いポータブル仕様とし，ジュラルミンケースに収納する。

② AEUに配布するポータブルカメラ・VTRセット

当初は各AEUで収録して再生する「鏡効果」的活用が重点と思われたが，Educational Media Centerで制作する作品の素材撮りにも多く活用する意向があり，VHSにU-Maticを追加する事を検討する必要がある。

③ （1：1）トランスの追加

建築工事の打合せの中で，当初指示していた照明用電源を分電盤から別系統で供給する事が不可能との話しがあり，電源ノイズを除去する為に（1：1）トランスを追加する必要がある。

④ 今回の協議中にユーゴ側より要望のあった仕様変更

- カラーカメラの撮像管の仕様をプランビコンにする（ランニングコストが高くなる旨説明したところ，とり下げた）

・カメラプロンプターシステムを追加する。

・TBCにフレームメモリーを追加する。

・コンピュータアニメーション機能を追加する。

・タイムコードジェネレータ，タイムコードリーダを追加する。

・コントロール室カラーモニターTVのうち2台を26インチにする。

・VHSテープに郵送用のビニールケース，梱包用ダンボールを追加する。

以上について前向きに仕様を見直すこととした。

ビデオ教材の制作スケジュールとしては，初年度（'86）1本／2ケ月，次年度から10本／年程度との話しであったが，具体的にテーマまでは検討されていないようである。またスタッフ体制において，ビデオエンジニアーの候補が決定していないこと，Mr. Martinis 以外に制作スタッフを配置する事を考えていないこと等，ビデオ制作にかかる人材配置について，ユーゴ側にかなりの認識不足があるように思われる。このままでは機材が設置されてもなかなかビデオ機材が制作できないのではないかと危惧される。

対策として次の事を提案する。

① Mr. Martinis のような実務者ではなく，メディカルスタッフに対して，ビデオ制作の概要を理解させる。日本への研修員受入れ時に実施する事がベターと思われる。

② 日本より制作スタッフチームを派遣し，ユーゴ側スタッフと共同でビデオ制作を実施する。

③ 立ち上がり時短期間にある程度の教材を整備する為に，日本側でも何本かの作品を制作し，ユーゴ側に供与する。具体的には英語版で制作して供与し，現地語への吹き替えをユーゴ側で実施する。

Ⅲ－3－6) 今後の協力計画（加藤）

今回のチームの派遣目的の一つに向う一年間の協力計画の作成があった。より具体的にいえば，初年度において，

① センターの組織，ニーズの同定，カリキュラムの作成等の基本的な作業

② EDUCATIONAL MEDIA CENTER 等基本的ハードウエアの整備

③ ハードウェアをうごかす最小限のマンパワーの訓練

の3点が達成されること前提として，

第二年度における，

④ 具体的活動目標

⑤ 活動目標達成のための日・ユ双方のインプット計画（マンパワー，資金，及び所用時間）の内訳

の2点について細目を定めることであった。

しかし，遺憾ながら，上記①～③の3点のいずれについてもチーム派遣の時点では完了してお

らず，④及び⑤について具体的イメージを描く段階に達していなかったのが実情である。したがって，今回の協議は次年度以降の協力計画細目を作成するというよりは，現在進行の初年度プログラムの修正乃至再確認にとどまる結果となった。以下その概要を示す。

なお，①～③の3点については遅くとも来年3月までにはなんらかの見通しを得られると考えられることから，来年3月を目途に再度，協議チームを送ることがユーゴ側より要請された。

1. プロジェクト全体に関わる事項

A. Organization of users

別紙
- SUMMARY OF THE GENESIS, RECENT AND FUTURE ACTINITIES OF THE PROJECT（資料10）
- PROPOSAL FOR SAMPLE OF USERS（資料6）
- PROPAGANDA用 BROCHURE（資料11） 参照
- CONCLUSIONS FROM THE 9th MEETING (ASSOCIATION OF HEALTH WORK ORGANIZATIONS)（資料12）

B. Identification of needs

アンケート調査実施中

これまでに42のユニットからの回答を回収した。そのうち上位3種は

emergency

use of drugs (news)

in-team relations(management problem)

2. 分野別事項

A. AV

① 活動計画

教材の作成についてはマルティニスの帰国を待って検討する。

（総じて，専門的スタッフの欠如のため，具体的手順がかならずしも明瞭にイメージされていないという印象を受けた。）

② 機材供与

久保田報告にゆずる。（本報告Ⅲ－3－5)参照）

③ 専門家派遣

EMCの完成後，及びカリキュラムがかたまった段階で，改めて検討を要す。

④ 研修員受入れ

SMIGMATOR以降のユーゴ側候補者については未定の模様。

（後述のとおりチーム帰国後，Dr. Gordana Pavlekovic′の受入れが決定した。）

B. CAI（以下DEZELIC教授との個別協議の結果要旨）

① 活動計画

CAI教材のカリキュラムについては別途 educational programmer（DR GORDANA PAVLEKOVIC のグループ）が検討中の段階であり，未だ具体的イメージはない。したがってCAIグループとしては，カリキュラムが確定するまでの間，具体的コースウェアの作成よりはむしろ方法論に重点を置いて試行的作業をつづけることとしたい。

ゼロから anthoring system をつくりあげようとするのは多大の困難をともなう。したがって，当初はまず既存のソフトウェア開発用ツールを利用しつつないしは日本から参考用として供与されたソフトウェアを利用しつつ，いくつかのコースウェアの作成からとりくむこととしたい。ただし将来的には独自の authoring system の開発を指向していることは勿論である。

② 機材供与

ⓐ CAI専門家のユーゴ訪問の際に携行機材として下記のソフトウェアの供与を希望。

IBM PERSONAL COMPUTER INSTRUCTIONAL SYSTEM

PASCAL COMPILER

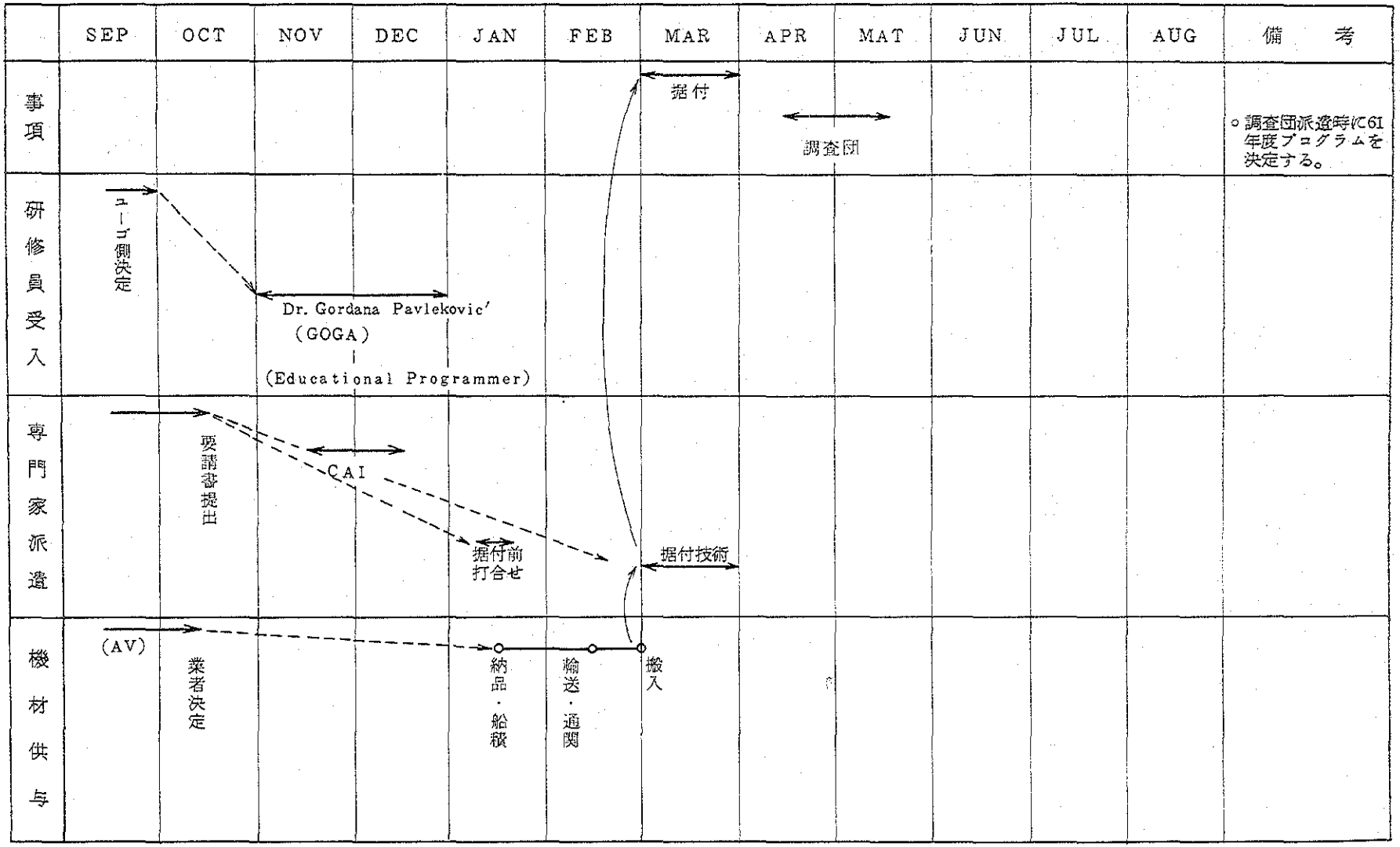
MICRO PROLOG

VCN EXECUVISION（グラフィクス用ソフト）

③ 専門家派遣

山形大学赤塚教授の来訪を希望（11月20日頃から12月15日までの訪問を希望）

なお，今年度3人目の研修員受入れについては，ユーゴ側はSMIGMATOR にかわるAV 専門家の受入れに固執しているようで，なお暫時猶予を願いたい旨希望していた。これに対し，わが方より，本年度における研修員受入れ予算がタイトであること，したがってすみやかな手続きが必要であることにも言及しつつ，すでに要請が出されているDR GORDANA PAVLEKOVICの受入れがのぞましい旨サジェストしておいた。その結果，専門家チーム帰国後，ユーゴ側で日本側提案を受入れる線で意志決定が下され，85年中の受入れ準備を進めることとなった。


SEP
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事項
研修員受入
専門家派遣
機材供与
据付
調査団
○調査団派遣時に61年度プログラムを決定する。
ユーゴ側決定
Dr. Gordana Pavlekovic'
(GOGA)
(Educational Programmer)
要請書提出
CAI
据付前打合せ
据付技術
(AV)
業者決定
納品・船積
輸送・通関
搬入

Ⅲ－3－7) クロアチア共和国技術協力庁訪問（加藤）

9月6日(金) AM 9：00～9：30

先　方：Mr. Faruk Redzepagic′ (Director)

Mr. Petar Strpic′ (Deputy Director)

Mrs. Mirjana Mladineo (Assistant)

(Dr. Jaksic′, Dr. Skupnajak, Dr. Pavlekovic′, Dr. Eterovic′, Mr. Skrbic′ 同席)

わが方：専門家チーム全員

先方(Mr. Redzepagic′)より歓迎の挨拶のあと，Dr. Skupujak よりユーゴ側における最近の進捗状況（ユーザーの組織，プロジェクトに対するクロアチア共和国各省からの支援取付等）につき報告があった。次いで加藤より，日本側の進捗状況について，特に国内委員会の設立及び支援メンバーのネットワークづくりの2点に重点を置いて説明した。これに対しRedzepagic′ 長管より感謝と満足の意が表明された。

なお，ユーゴ側が本プロジェクトについて日・ユ双方の完全なる相互主義。

(Reciprocity)を主張した例が過去にあり（実施協議調査団交渉時），また現在においても，「双方の対等なる協力」を観念している感なきにしもあらずであることにかんがみ，加藤より，

① JICA は途上国に対する協力機関であること。

② ユーゴスラビアに対しても他の途上国に対するのと同様のルールを通用せざるを得ないこと。

の2点についてあらためて説明し，先方はこれに対し理解を示した。

Ⅲ－3－8) その他(Prof. Padovan, Prof. Guberina 訪問)（鈴木）

耳鼻咽喉科学が，Zagreb で，ヨーロッパ初めての教室を開いたこともあって，当地のこの領域は十分に進んでいる。Zagreb 大学には，3つの大学病院があるが，前回，ザクレブ大学の Rector をしている Prof. Krajina の教室を訪問したので，今回は，今1つの大学病院の Prof. Padovan を訪問した。100 症のベッドをもつ，極めて活発な臨床とみた。

Padovan 教室は難聴児問題に関心をもっており，その関連で当市の SUVAG センターに Guberina 教授を訪問した。Guberina 教授は，独特の訓練法で世界的に有名であるが，予め手紙していたこともあって，今回は面会し，かつ約2時間を過ごすことができた。約1時間は VIDEOを用いての説明であったが，われわれのプロジェクトについても強い関心を示し，協力を表明していた。プライマリーケアレベルの難聴児の早期発見，診断は重要なので，この協力態勢はプロジェクトにとって有難いこととみた。

Ⅳ 総 括（鈴木）

今回，本プロジェクト開始第１年目第１回の専門家チームは，開始にあたって受け入れ態勢の確認，計画とくに器材供与についての最終的確認，第２年目以後の計画みとおし，それにたまたま開催されていた primary care に関するセミナーへの参加など，正味10日間という短期間であったが，一応の目的を達したと考える。すなわち，成果を要約すれば以下の通りである。

1) プライマリケアのセミナー参加は，先発した小野寺が全スケジュールに参加するとともに講演の機会をもった。

2) インストリア地方のヘルスステーションネットワークを訪問して，ネットワークのターミナルの状況を視察した。

3) ノビザクレブのヘルスステーションでVIDEOを実演した。

4) センターの内装工事を視察し修正したほか，プロジェクトのユーゴ側準備状況を全体にわたってチェックした。

5) 本年度の専門家派遣と研修生受け入れを提案した。

6) 今年度後半の概略的計画について合意した。

〔主なスケジュール〕

月／日	午前	午後	晩
8/24 (土)			〔小野寺先生 成田発〕 Hotel EXCELSIOR
8/25 (日)		〔小野寺先生 Dubrovnik着〕	〃
8/26 (月)	サマーセミナー参加	サマーセミナー参加	〃
8/27 (火)	〃	〃	〃
8/28 (水)	〃	〃	〔鈴木先生・久保田 成田発〕 〃
8/29 (木)	〃	〃 〔鈴木先生・久保田 Dubrovnik着〕	〃
8/30 (金)	〃 (鈴木先生・久保田合流)	歓迎昼食会 INTER-UNIVERSITY CENTRE 見学	FOLK DANCE 見学 〃
8/31 (土)	〃	フリー	答礼夕食 〃
9/ 1 (日)	フリー	フリー	フリー 〃
9/ 2 (月)	〔Dubrovnik発〕 〔Zagreb着〕 (Istra地方視察打合せ)	〔Zagreb発〕Istraへ (車にて) Pazin PHC Center 視察	〔Porec着〕 Hotel MATERADA
9/ 3 (火)	Porec PHC Center 視察 Hotel DVLFIN Station 視察	Portoroz見学	歓迎夕食会 〃
9/ 4 (水)	Buzet PHC Center 視察 新設工場内 St. 視察 Livade St. 視察	RIVIERATURIST (Lstarske Toplice) 視察 ROC St. 視察 昼食(Hum)	JICA 加藤氏 Zagreb着 〔Zagreb着〕(23:30) Hotel ESPLANADE
9/ 5 (木)	ディスカッション Stampar School of P.H.	Novi Zagreb PHC Center ビデオ・デモンストレーション	答礼夕食会 〃
9/ 6 (金)	ミーティング the Republic Administration for Teohnical Cooperation ディスカッション Stamper School	ミーティング Dean of Medical School Vniversity of Zagreb 歓迎昼食会	Center SUVAG 視察 〃
9/ 7 (土)	〔Zagreb発〕 〔Belgrade着〕	大使公邸表敬訪問	大使館主催夕食会 Hotel METROPOL
9/ 8 (日)	フリー	フリー	〃
9/ 9 (月)		〔Belgrade発〕 〔Copenhagen着〕	Hotel SCANDINAVIA
9/10 (火)	〔Copenhagen発〕	〔加藤氏 Nigeriaへ〕	
9/11 (水)	〔成田着〕		

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INTERNATIONAL SUMMER SEMINAR
TECHNOLOGY IN THE PRIMARY HEALTH CARE SYSTEM
Dubrovnik, Yugoslavia
August 26-31, 1985

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International summer seminar
"Technology in PHC"

Prof. Dr. V. Cucić, Belgrade

W H Y ?

T E C H N O L O G Y I N P H C ?

1. W H Y P H C ?

2. W H Y T E C H N O L O G Y ?

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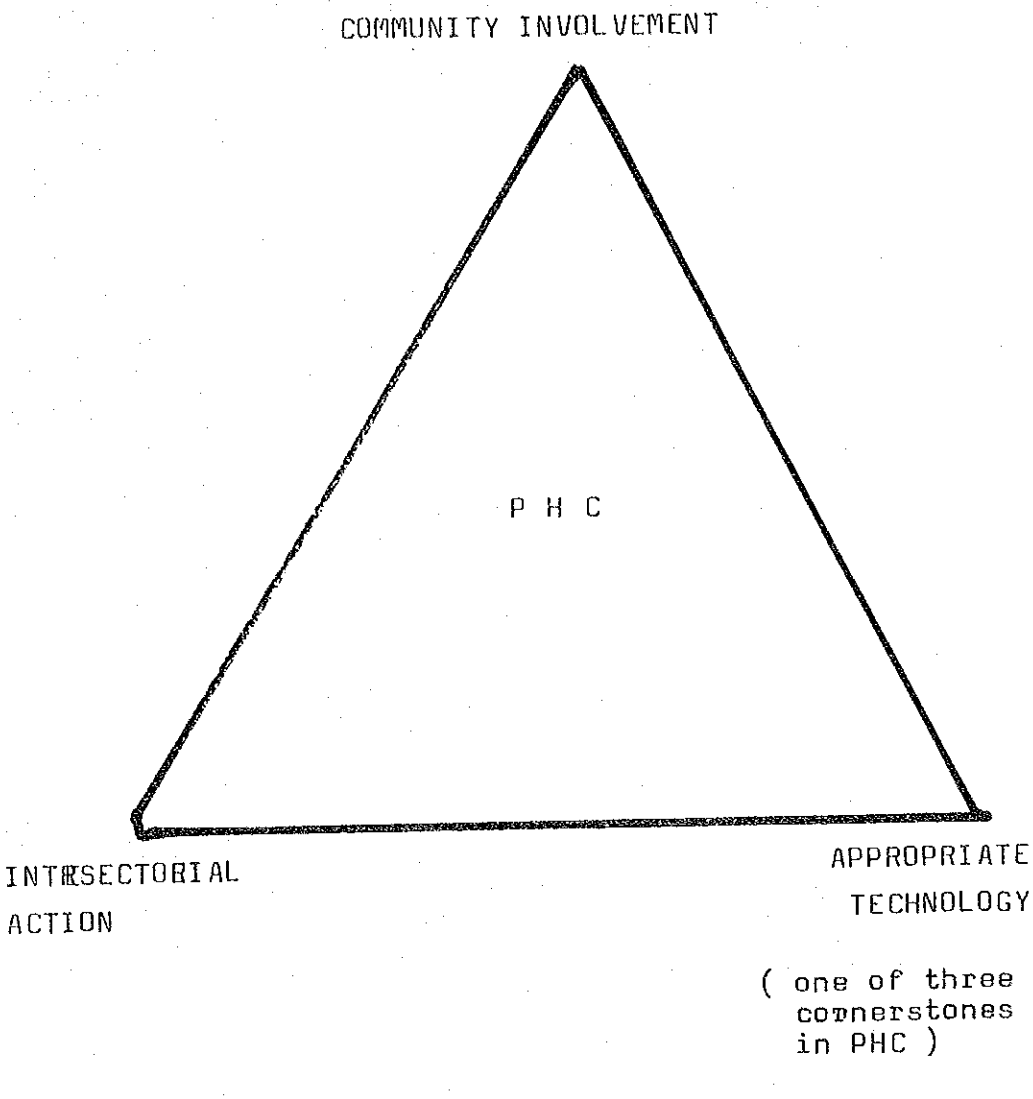
3. S Y N T H E S I S

THE PRIMARY HEALTH CARE TRIAD

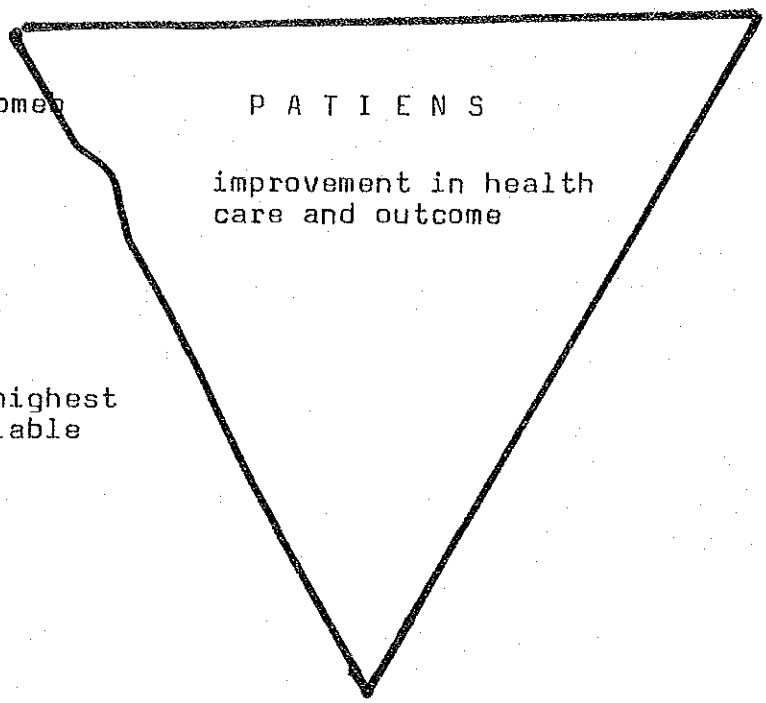


THE ACTORS AND THEIR INCENTIVES

CONSUMERS

HEALTH INSTITUTIONS

to maximize income



PRODUCERS

to gain from utilization

PHYSICIANS

to utilaze the highest technology available

REGULATORS

PRIMARY HEALTH CARE consists of essential health care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community throught their full participation and at a cost that community and the country can afford to maintain at every stage of their development, in the spirit of self-reliance and self-determination.

(Alma-Ata Conference, 1978)

EIGTH ESSENTIAL ELEMENTS OF PHC

1. Education concerning the prevailing health problems and methods of preventing and control them;
2. Adequate food supply and promoting proper nutrition;
3. Adequate supply of safe drinking water and basic sanitation;
4. Maternal and child health including family planning;
5. Immunisation against the major infection including family planning;
6. Preventing and control of local endemic diseases;
7. Appropriate treatment of common diseases;
8. Provision of essential drugs.

1. HEALTH BEHAVIOR
2. CONDITION OF LIFE AND WORK
3. DISEASE PREVENTION
4. DIAGNOSTICS TREATMENT AND REHABILITAION

TECHNOLOGY

WITH THE STRESS ON COMMUNITY INVOLVEMENT AND, MULTI-SECTORIAL APPROACH.

WHAT IS A TECHNOLOGY ?

OTA 1980 - Medical technology

"Drugs, devices and medical and surgical procedures in medical care, and organizational support systems in wich such care is delivered."

(WHO, 1978, Health Technology)

"....a systematic course of action directid toward the solution of a health problem. Such action is selected from alternatives on the basis of scientific, technical and traditional knowledge available. "

Rogers : " Technology can be broadly defined as a disign for instrumental action."

Amara (1975): "Software of technology: social instruments - methods, procedure, known-low regulations, lows."

NATIONAL HEALTH STRATEGY - a group of selected medical, public health, enviromrntal, technical, financial and development intervention - together with AN ASSESSMENT OF TECHNOLOGY and manpower required to achive health and development objectives.

REVIEW OF EXISTONG TECHNOLOGIES should be made for each countrywide priority programies to idenife those that.

ARE APPROPRIATE and to promote research to develpp alternative technologies.

(Broad Programing,WHO,1981)

QUESTIONS AND DILEMMAS

1. The place, the Role and import of technology in achieving PHC objectives;

2. Which factors play a significant role in development and diffusion of one technology in the PHC and how to exert an influence on them;

3. What is an "appropriate technology" for PHC?

"AT HAS MANY ANSWERS TO GIVE, BUT WE SHOULD ASK THE RIGHT QUESTIONS"

Appropriate tools are
also appropriate concerns
methods and words.

Socio-Technological Development in the Primary Health Care System

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Socio-Technological Development in the Primary Health Care System

I Introduction

The International Conference on Primary Health Care (P.H.C) held in Alma Ata, U.S.S.R. on September 1978.

The P.H.C is the key to attaining by the year 2000 in level of health that would permit all peoples of the world to lead a socially and economically productive life.

The countries throughout the world have expressed acceptance and the intention to adopt the P.H.C concept for their own national health program.

Japanese government endossed the declaration in Alama Ata to achieve the social goal of health for all peoples of the world by the year 2000 through the P.H.C. And also, Japan has in many occasions, publicities and conferences, declared its interest of promoting and collaborating in national and community efforts, not only in matters of health, but in all concepts of community development.

II Integrated Approach

The 5th South East Asia Medical Information Center (S.E.A.M.I.C) Workshop discussed the approaches to documentation and statistical information in P.H.C in Manila, Philippines on March, 1978. The countries in the South East Asia accepted intention of P.H.C. through the discussion of existing organization of health statistics and its role in each country, and multilateral collaboration for the development of health information system by using of health statistic, data collection, data processing and analysis.

The 9th Senior Nurses International Workshop of Working forward Health for all was held in Tokyo, Japan on October 18 - November 4, 1983. The workshop discussed the development of leader strategies in the nursing, and the changing process in support of health for all through P.H.C.

The cooperation project on the Continuting Education for P.H.C System of Yugoslavia was organized on bi-lateral cooperation with Japasnese government on November, 1984.

On this occasion, the International Summer Seminer for the Technology in the P.H.C system would be quite timely held in Dubrovnik, Yugoslavia on August 26-31, 1985.

Health delivery system in each country requires the presence and acceptance on the progress of P.H.C. with an appropriate socio-technological approach which can be

used to resolve health problems for multi-sectional components toward the year 2000.

It is quite necessaty to develop the integrated approach with social and technological system for health care services. Such dicision for development approach was mainly based upon medical technological ground in previouly. But, many health problems have the complex of variables that include human behaviours, service structures, cost-effectiveness, acceptabilities with safety and life style of the population such as social aspects.

The concept and development approaches for P.H.C are very variable and different on every P.H.C provides through a lot of discussing on many occasions.

Therefore, we would like to take the actual integrate socio-technological discussing on the base of practice for P.H.C system.

III Systematic Care

The late Professor Emeritus, University of Tokyo, Haruo Katsunuma reported "Primary Health Care and Japan" at the 9th Senior Nurses International Workshop on 1983. He said the position and nature of today's P.H.C as follows.

"Today, P.H.C is very much at the focal point of debate in W. H. O and throughout the world. P.H.C must be flexible so that it can be adjusted to the specific and varying needs in different countries."

Furthermore, he proposed the briefly list of areas to establish systematic P.H.C in Japan as follows eight articles.

1) Establishment of bioethics.
2) Reformation of the educational system, especially the curriculum for the health-allied professions.
3) Provision of health education for the general public.
4) Establishment of community health care system.
5) Provision of comprehensive health care.
6) Completion of community health insurance system.
7) Introduction of measures to cope with the aging of the population.
8) Development of a system incorporating maternal and child health, school health and industrial health.

IV Community Health Activities

Health must be developed and must be achieved by thepeoplethemseves. They must accept the responsibility for their own health and must desire to progress well health as much as they desire economic and social stability. The poople and the community, therefore, become the essential active elements in the P.H.C approach.

The professional personal with primary interest and emphasis on problem of health must necessary start with free exchange of health and medical information on the basic consideration of self-reliance and self-determination of fundamental attitudes of community health activities.

The fundamental attitudes of community health activities would be established the promotion of self-consciousness that "each one's health must be protected by oneself." This slogan makes up the constructive health plan for health care system as following points.

1) Development plan of health promotion through continuting life.
2) Improvement plan of health and medical facilities for health delivery system.
3) Accumulation and distribution plan of health resources.
4) Improvement plan for environmental sanitation.
5) Contingenecy approach plan of effective health organization and structures.
6) Collaboration plan between existing health care system and health system based on P.H.C.

V Policy Decision and Priority

The policy decision by the central government is an essential points for the progress of P.H.C system. Also, the decisional function of each autonomy with direct contact of P.H.C practice is very important element to promote the practical approach for P.H.C.

A: People's interests

1) What actions have been taken at policy decision level?
2) Whose personnels and groups have been involved at policy decision?

B: Policy markers' interests

1) Health meeds of community and grass-root level.

2) Restriction of policies and regulations.
3) Problem points of existing health care system.
4) Provision of health delivery system and appropriate health services.
5) Adjustable health services with the comprehensive socio-economical development plan.
6) Limitation of financial support.
7) Successful examples with advanced provision.

C: Charactors of P.H.C system

1) Simplified.
2) Repeated.
3) Timely.
4) Accurated.
5) Comported.
6) Low cost.

D: Promotion factors for P.H.C system

1) Existing of excellent leaders of health allied professions.
2) Consiousness for community oriented intention.
3) Appropriate and acceptable resources.
4) Constructive socio-technological approach.
5) Fullfil exchange of information.
6) Paricipation of peoples.
7) Coordination and cooperation system,

E: Responsibilities for autonomy and community

1) Universal coverage .... Faire and resonable distribution, allocation of resources for health care.
2) Integrated activities with development policies
.... Ajustment with the comprehensive socio-economical development and respect of historical views, culture, tradition existing communities.
3) Comprehensive care system wherein services at all level by the community health program to suppport and practice P.H.C
.... Promotive, preventive, curative and rehabilitative services.

4) Timely response for changes in health care situation.

.... Approach system, fundamential idea for health, population structure, health care provides, and other social change and economicl change

VI Allocation and Linkage of Health Resources

In practically, each local autonomy in the frontline of P.H.C system is very difficult to provide every professional groups and high sophisticated facilites related health resources. Therefore, P.H.C should be standing on well linkage with the secondary, tertiary health resources in the large areas of health services on the base of functional organized collaboration and cooperation upon the consensus of people.

	PRIMARY	SECONDARY	TERTIARY
Basic guide-line for health and medical facilities service style	General service, daily life service, High frequent disease service, Health promotion, Health education, Health guidence, Home visiting, Home care service.	Comperative higher service, Speciality service, Centeral natured and self-complete facilities service.	High speciality service, Sophisticated and expensive service, Large scale and intensive care service.
Administrative Area	City, Town, Village area. Each autonomy is establishing district health center for the pratical health service activities.	Large living area combined several autonomies. Prefectural health center area including small scale health center area, Comphrehensive center hospital.	Prefectural level area. Hokkaido and other a few prefectural government divide 2 or 3 tertial areas depended on population distribution and provision of future development.
Securing and education of health manpower.	Setting of health manpower indicator, Practical training and education for the public.	Setting of health manpower indicator, Training and education at the health center level.	Estimation of health manpower in future, University, Collage, Educational Hospital, Public health Laboratory, Mental health Center, Seholarship, Seminer, Workshop, Sumposium.

Focal points of practical activities through allocation and linkage of health resources would be considered about consideration and appreciation as follows.

1) Promotion of motivation of health care.
2) Consiousness of efficiently integration approach.
3) Identification of high risk groups and problem points for health concern.
4) Encourage collaboration among P.H.C providers.
5) Cultivation and promotion of team work.
6) Comparative analysis and information exchange for similar groups.

VII Continuting Education

Although the many professional personnels engaging in health and medical care have the appreciation ideas for progress of P.H.C system upon their various kinds of interpretation, they are mainly taking consideration on the intentions for the secondary or tertiary care with high-sophisticated medical scientific technology.

It is quite general tedency to have more hospital oriented intention than community oriented by themselves, therefore, we should have acurate appreciation for those background of P.H.C development.

But, we can think about new generation not only health allied also medical care personnels with intention for community oriented activities existing the wider scientific scope of socio-technological development with P.H.C progress in the health service systems toward the year 2000.

All contingent on the new intention based on the socio-technological science for community approach, organization method, system-analysis, epidmiology, and information technology etc. on the base of public health.

There are many valuable scientific treasures of public health approaches in community health and social welfare.

The professional personnels to progress P.H.C system are very important roles and tasks with leadership for development of P.H.C on community oriented intention.

It is a urgent and important task for us to take the continuting education for P.H.C on the essential points and high priority of authorities by using of audio-visial and information technology.

Educational Policy for Manpower development

1) Changing attitude towards P.H.C. system.
2) More training and reorientation to P.H.C. for existing manpoer.
3) Scientific consiousness for community level activities.
4) Identification of the basic curriculum content and teaching.
5) Appreciation of new approaches for the dynamics of health services systems.

Basic curriculum content examples

1) System analysis of health care.
2) Health planning.
3) Health organization and administrative science.
4) Integrated health activity.
5) Health and medical information system.
6) Epidemiological approach and control programme.
7) Health education technology and behavioural science
8) Socio-economical provision for health care system.
9) Health finance and grant.
10) International health cooperation.

To promote and to improve those health care system, the manpower development related with health plannign is very essential factor. And the health plan approach is necessary condition for the allocation of limited health resources and development procedure step by step activities.

VIII Health Plan

The health plan has a nature of identification of solving the complex health problems to complete task. The problems have the hazards related to change in life-style and its environment. On the occasion of plan making, community participation is an essential factor for the smooth procedure and collaboration. The participation for plan-making might be consisted by the opinionleaders to ensure their total involvement for their health care intention.

Of course, the plan-making should be adopted the actual data and survey and research reports for health care, health needs and health statistic analysis in each health and community level.

The health development plan has the multi-sectoral natures. And the plan is closely interrelated the comprehensive socio-economical development plan to promote the

dynamic intentions on the base of collaboration and coordination between health and other development activities.

The concept of health plan intended the comprehensive approach should be involved the health promotion, prevention, curative service and rehabilitation.

The new approaches to comprehensive health plan at prefectural and large city level started officially. The plan of health oneself if gradually making up with effort of people and local government staff. But health plans are usually placed as an itegrated component of a comprehensive socio-economical plan of a respective local government.

The prefectural level of comprehensive health plan made up 8 prefectures, Hokkaido, Iwate, Akita, Fukushima, Kanagawa, Kyoto, Shimane and Hiroshima. Evey plans set up the areas of primary, secondery and teritary health and medical care services.

In recently, many local health centers and cities, towns and villages carried out their own health planning participating not only medical professions, but also the representative of various selected organizations and inhabitants. These health plans have mostly the nature of action programmes of implementation level for health care system with close contact of the general inhabitants.

Therefore, there are quite important function for progress of P.H.C.
In order to promote those health planning approach, the Institute of Public Health organized 3 weeks training course for the director and medical doctor engeging in health centers since 1968. In 1975, this training course organized as following curriculum.

1) Foundation of Health Plan (18) (Hours

(1) Meaning and Concept of Health Plan (A4)
(2) Provision of Health Plan (A2)
(3) Present Status and Subject of Health Administration (A2)
(4) Medical Care Act and Health Plan(A2)
(5) Provision of Health Policy (A2)
(6) Provision of Local Autonomy (A2)
(7) Planning and Public Administration (A4)

A: Lecture (62)
B: Practice (6)
C: Exercise (8)
D: Field Training (16)
E: Others (4)

2) Theory of Health Plan (18)

(1) Community Specificity and Health Problems (A2)
(2) Theory for Health Planning (A2)
(3) Health Economic Theory (A2)
(4) Health plan and Health Economy (A2)
(5) Cost-benefit analysis (A2)
(6) Health Plicies in foreign Countires (A4)
(7) Health Plan and System Analysis (A4)

3) Practice of Health Plan (20)

(1) Health Plan Organization (A2)
(2) Planning of Health Eduction (A2)
(3) Social Welfare and Social Resource (A2)
(4) Rural Health - Human, Agricultural Area, Health (A4)
(5) Present Status and Subject of School Health (A2)
(6) Health Plan and Public Health Administration (A6)
(7) Primary Health Care on the International Aspects (A2)

4) Practice and Exercise (14)

Case Study of Health Plans (B6)
Exercise (C8)

5) Seminer and Field Training and Others

(1) Seminer of Comprehensive Health Plan (A4)
(2) Field Training - Saku Comprehensive Hospital (D12)
(3) Field Seminer - Medical Information System Development Center (D4)
(4) Director General of the Institute of Public Health
- Provision of Environmental Subject (A2)
(5) Opening Ceremony, Orientation and Closing Ceremony (E4)

IX Comprehensive National Plan

The basic plan of national level is the Third Comprehensive National Development Plan (SANZENSO) by National Land Agency in Japanese Government. This plan got cabinet decision on November 4th 1977 as Comprehensive National Development Plan, stipulated in Comprehensive National Land Development Act (Act No. 205, 1950) Articl 7, Clause 1.

This plan clearified the basic policies of comprehensive national development form in long term point of view and presents the target for the systematic provision of facilities required for improving the quality of life of the people. The Fourth plan is making now in the central government.

Health Care System on SANZENSO is an category of medical facilities having the nature of national land policies for the fundamental direction of the provision.

However, up to the present, the health sector plan within a national development plan has not been fully developed yet.

Medical facilities in SANZENSO (Fundamental Direction of the Provision)

In the midst of remarkable change in the mode of living in recent years, various factors influencing the people's health have become complex and deverisified, while the people as a whole are increasingly recognizing the value of health as vital condition for human activities.

Analysis of the nationwide distribution of medical facilities, however, indicates that hospitals with a large number of beds and such large-scale and high grade medical facilities as hospitals attached to medical colleges (medical departments) are concentrated in big city areas. Concerning highly specialized medical facilites, a local cancer center is installed in each of nine blocs throughout the country with the National Cancer Center located in Tokyo, but review of the nationwide and systematic arrangement is necessary fo other highly specialized medical facilites such as for cerebro-cardiovascular disease.

Under such circumstances, balanced distribution of medical facilities at a high level will be required on a nationwide basis in order to realize the Integrated Residence Policy.

For this purpose, a systematic arrangement of highly specialized medical facilities will be attempted throughout the nation and arrangements will be made so that such medical care may be served in rural regions. In the meantime, it is necessary to establish the comprehensive regional health and medical service systems in each TEIJYU-KEN and residence areas by joining health and medical care services according to the actual regional situations while coordinating above mentioned highly specialized medical facilities systematically provided throughout the nation, to attempt the improvement of facilities including those for emergency and in the remote areas and to strengthen the organic coordination among those facilities.

(Measures for Proper Allocation)

(i) The program for adding national medical colleges (the program proving medical colleges to prefectures without them) currently being undertaken will be promoted and medical college (department) and hospitals attached to them will be installed and developed in four prefectures such as Fukui, Yamanashi, Kagawa and Okinawa where no medical colleges exist.

(ii) With the National Cardiovascular Disease Center in Osaka as the core, promotions will be made for nationwide and systematic arrangement of specialized medical service system for diseases of the circulatory organs.

In each prefecture at least one medical center exclusively designed for children will be systematically arranged nationwide with The National Children's Hospital in Tokyo as the core.

Additionally, nationwide system will be implemented for specialized medical facilitie other than those for cerebro-cordiovascular diseases and medical care for children.

(iii) National hospitals are located at various place in the country. The function of those hospitals should be more sophisticated by coping with community health and medical service program following natural and as the basic hospitals in the region. Especially, the functions for special diagnostic and theraputic care for diseases of cerebro-cardiovascular, kidneys and other intractable diseases should be strengthened.

National sanatoria for chronic diseases requiring long medical treatment were located at suitable places. But such changes as the decrease in the number of tuberculosis patients and the orderly change-over of patients who are being treated for chronic diseases are proceeding, so that its functions as the specialized medical facilities will be strenghened to cope with such changes in needs.

(iv) In order to cope with recent astonishing changes in the structure of diseaase such as the decrease of deaths from communicable disease such as acute epidemic, tuberculosis and the increase of deaths from degenerative disease such as high blood pressure, cancer, heart disease the provision of an comprehensive health and medical service system from health promotion and prevention of diseases to therapy and rehabilitation in each rgion is an urgent duty.

For this purpose, it is necessary to promote the establishment of the community health and medical service program following natural and social conditions while continuing to collaborate with high level medical facilities as regional cores then to proceed with the upgrading of medical facilities and with organic coordination among those facilities according to the program. The systematic improvement of emergency medical service, medical service at night-time and holidays and medical service in the remote areeas, all of which are urgent problems at present, is required through providing Life-Saving Emergency Medical Service Centers and leading central hospitals close to the remote areas and etc. systematically, based on the community health and medical service program.

The expansion and systematizing of medical care should be attempted and development of new medical informations system is required in order to consolidate the effective and efficient comprehensive medical service system.

Source: SANSENSO, National Land Agency of Japan, November, 1979.

X Health Information System

In recently, the scientific technology of information system is remarkable advanced. Those technology is very useful and effective for progress of health delivery system. Health and Medical Information System is expected to contribute to strengthening health care system. Therefore, the effective use and selection of appropriate technology have been quite important elements for systmatic approach adopted human, soft and hard-ware by the advance of computer system.

In September 1972, Ministry of Health and Welfare established an advisory committee on medical information system development.
The project consisted of two main programs as follows.

1) The investigation work which is to define needs of the information system in regions and hospitals, and to study on their feasibility.
2) The field trial of some of the information systems which have already been developed or can easily developed by current devices in certain area.

They are an emergency medical information system is Kanagawa prefecture, a regional clinical laboratory center in Wakayama Prefecture, a medical record linkage in Tottori Prefecture, and an application of facsimile and ECG transponder

for telemedicline in snowy remote places in Niigata Prefecture and in islands in Nagasaki Prefecture.

Both Ministry of Health and Welfare and Ministry of Internation Trade and Industry established the new organization for health and medical information system development called the Medical Information System Development Center (MEDIS-DC) in 1974.

Since 1976, based on the results of reseach, a new program has been carried out aiming at building should hospital information system (SHIS), which is to be the main and cost-effective hospital information System integrating many efforts already done in own country.

MEDIS-DC has been promoting the several points informations systems and disseminating the information system knowledge to the intersting peoples and groups. These system has applied the data processing and communications technologies. This is aimed at the modernization of health and medical care by coordinating and accelerating communication transmission with close relation of community health delivery system.

The research and development have been conducted as following three areas.

1) Regional Health and Medical Care Information System

   (1) Emergency Medical Service
   (2) Remote Area Health and Medical Care
   (3) Regional Clinical Examination Laboratory System
   (4) Regional Health and Medical Care Facilities Coordination
   (5) Health Management System
   (6) Health and Welfare Information System

2) Hospital Medical Care Information System

   (1) *Information Systems for Hospital Management*
   Patient Record, Cashier Accounting, Medical Fee Claims, Management Statistics, Drug Stock Management, Bed Management.

   (2) *Informations Systems for Medical Treatment*
   Sickness History, Supply, Hospital Clinical Examination Laboratory Radirtion Dose Calculation, Clinical Drugs.

3) Medical Care Information Service System

(1) Medical Documentations

(2) Electrocaridiogram (E.C.G) Transmission Analysis

(3) Kidney Transplant

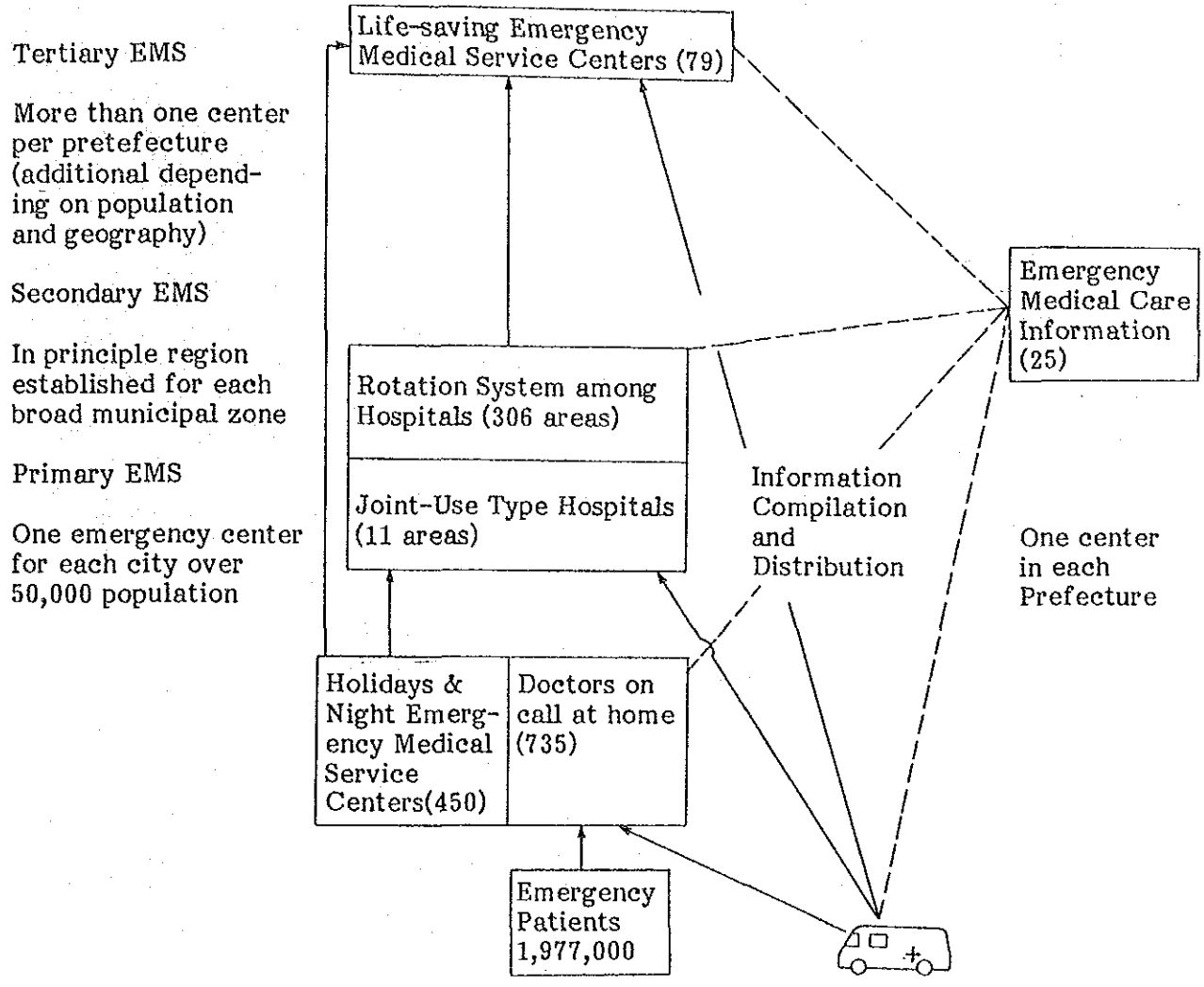
(4) Resistant Bacteria

(5) Drugs

Emergency Medical Service System

With the intention of ensuring medical care fo remergency case occuring during holiday or at night-time, a new systematized and planned policy has been promoted since fiscal 1977.

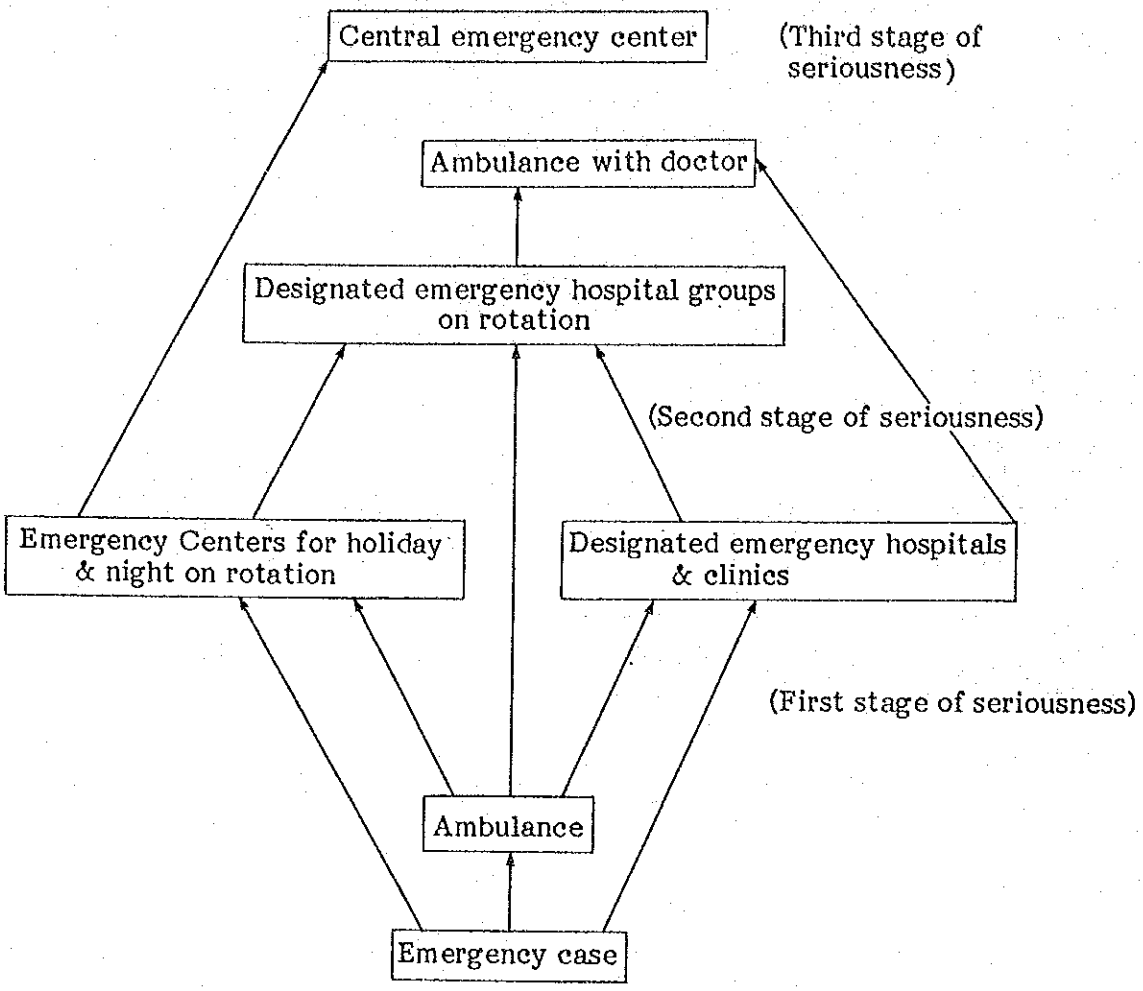
Emergency medical Services System



(Those transported by emergency amblulances during 1981) 3,998 Ambulances
(As of 1st April 1982)

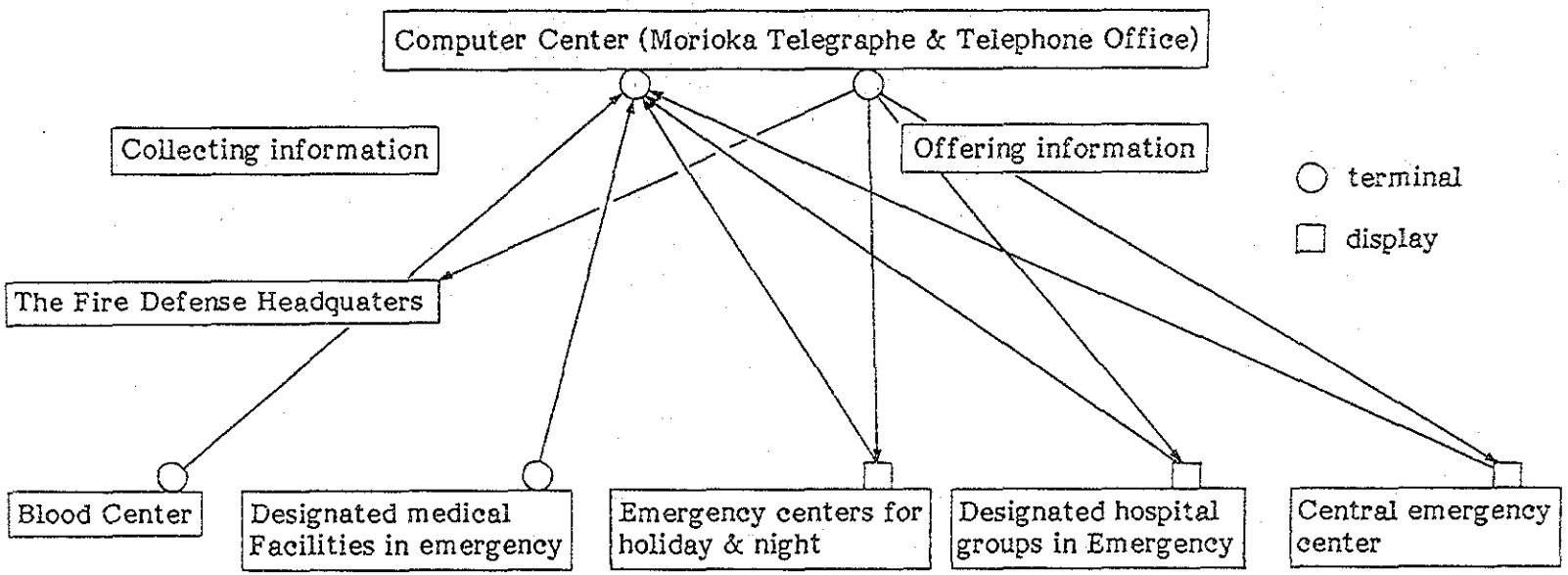
N.B. 1. The number of emergency medical care facilities are as of the end of 1982.
2. The figures for emergency ambulances and patients according to the Fire Defence Agency.
Sources: Ministry of Health and Welfare 1984.

Emergency medical Service System in Iwate Prefecture



(Source : Department of Health and Environment)
Iwate Prefecture Government 1984

Emergency Medical Information System in Iwate Prefecture

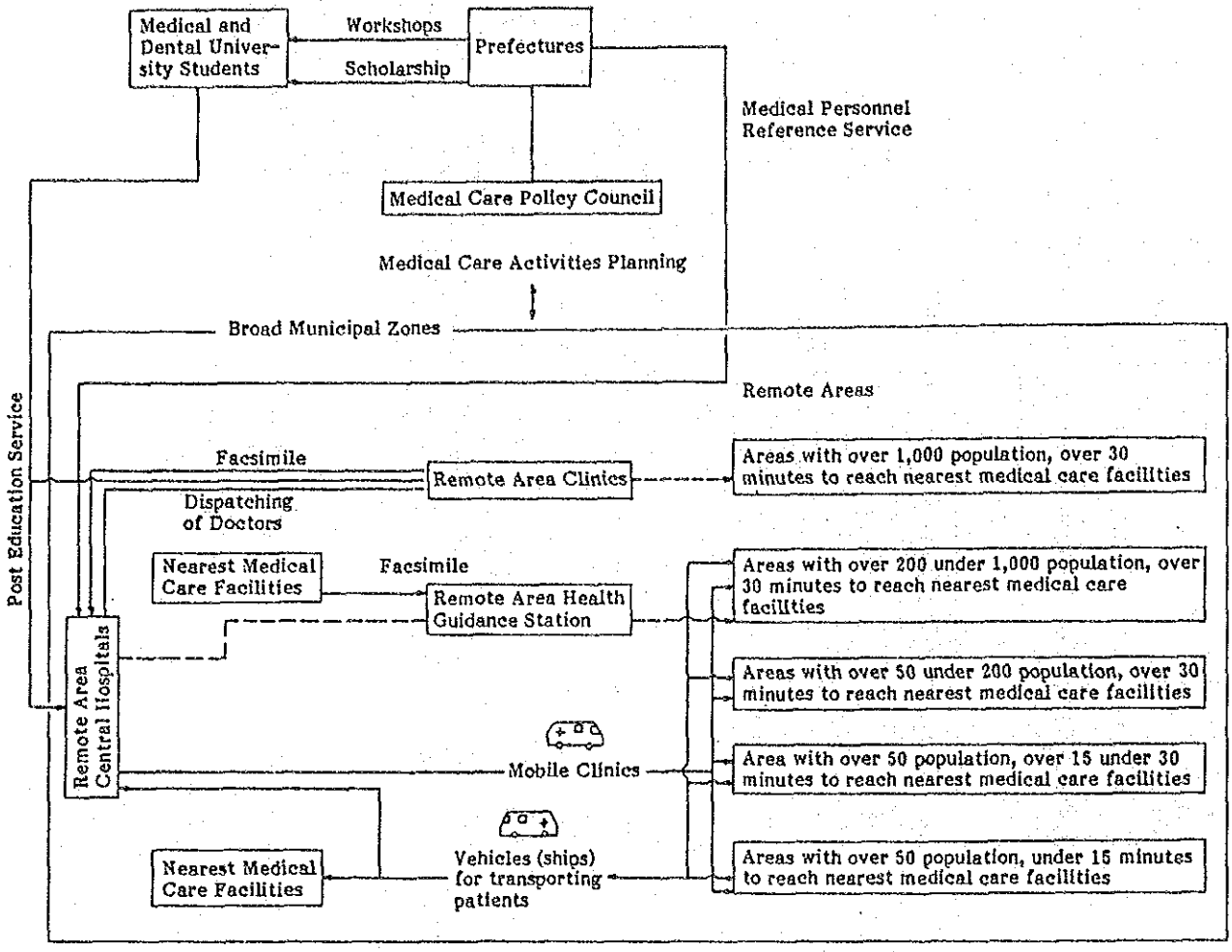


Information collection and offering on the availability of medical treatment, operation, occupancy of beds and blood supply.

(Source : Iwate prefectural Government 1984)

Medical Care Services for Remote Areas

Since 1956 efforts have been made to ensure the supply of medical care sievice for inhabitants in isolated mountain villages and offshore islands.



(Source: Ministry of Health and Welfare 1984)

XI Health Education

It is necessary to promote the integration of community health service, medical care service and social welfare service upon the consensus of the public.

The health delivery system for P.H.C has a natureof multisectional and the fullfil participation by the public. Also, we are now definitely advancing toward the real aging society with a high speed. Therefore, we must progress the field on the promotion of health eduction, encouragement of voluntary organizations activities and coordination of community health activites on the support of National Health Promotion Movemnet.

On this time, the strength of health education system is one of the urgent essential points to promote the professional education training by using of audio-visiual facilities and other information techniques.

And it is very timely to develop several selected disciplines to cope with the changing environment and health problems in community. The advanced approach for community is expected by the use and application of the appropriate technology of self-determination with local speciality and alternative technology for the adding of new technology values to the existance ones on the following points.

1) Establishment of Health Education System
2) Effective Use for Modern Audio-Visual Technology
3) Strengthen of Health Manpower Education and Training
4) Active Approach for Community Participation
5) Research Development for Community Health Care System

Types of Audi-Visual Material and Equipment

1) Printing Equipment and Display System
2) TV, Camera, Video Equipment and Visual Image System
3) Tape Recorder, Disc, Turn Table Audio System
4) Model and Specimen System
5) Other Intelligence System

Health Education System in Iwate Prefecture

(1) Promotion of health eduction

Health education is basic requirement for public health activities which contribute to deepen people's understanding on prevention of diseases, health

promotion and provision of practical knowledges and skills for the health activities. Health education has been promoted as a part of public health activities for health centers and municipal offices. However, these activities were conducted not in a well-systematic way, and people's needs for health education are becoming specific and high-level with the development of understanding on health in cooperation with school education and also to promote health education through routine health & medical activities. Particulary, MCH education is given at marriage, child-birth and childbearing period, education on degenerative disease control e.g. prevention of hypertention and health education for the aged, mental health are also given in the lifetime health education program. Health education is actively promoted in remote areas with poor health services in nothern part of the prefecture.

Thus we make efforts to expand to 15 districts "Seminars on health for prefectral people" sponsored by the prefectural government and the Medical Association of Iwate Prefecture is available to meet the people's disversified health needs.

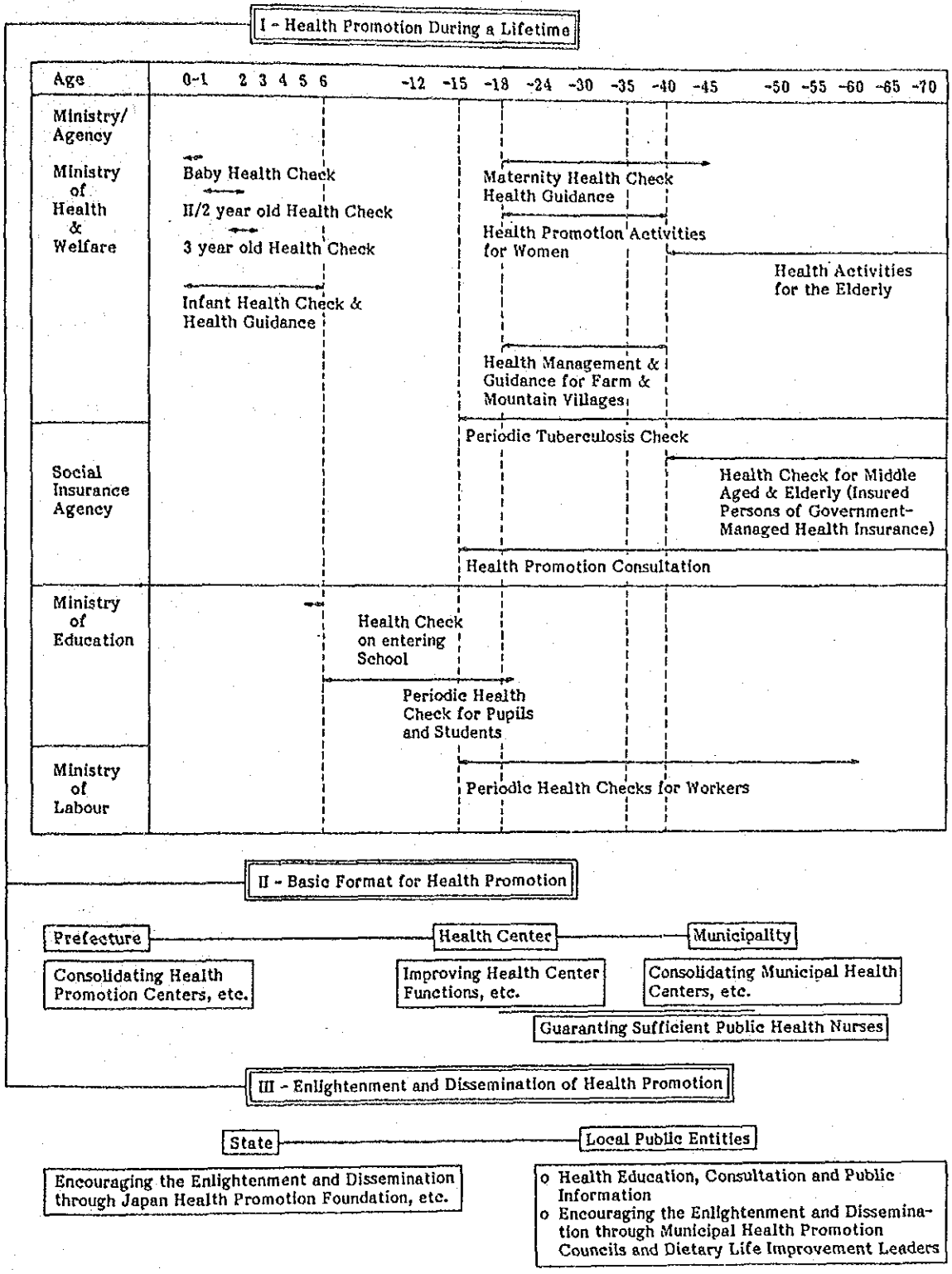
(2) Encouragement of voluntary organizations activities

We are promoting commuity groups in schools & PTAs and are promoting womens's club, youth club, senior people's club. This is because the effects of health promotion in households or working places in the community are long-lasting in our experience.

(3) Coordination of community health activities

We guide and assist local council on health promotion established in each municipality to coordinate and to meet the local health needs. We adjust available health programs where necessary.

National health promotion Movement



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PLANNING AND MANAGEMENT OF PRIMARY HEALTH CARE IN DEVELOPING COUNTRIES
International Postgraduate Training Course

DATA ON HEALTH CARE AND HEALTH ACTIVITIES IN THE AREA OF THE COMMUNE OF PAZIN

I. Introduction

The commune of Pazin is located in the central and North-Easthern part of the Istrian peninsula. With its 532 km^2, it is the second in size of the eight Istrian communes. Besides the commune of Buzet, it is the only commune in Istria which is not open to the sea. Highlands and lowlands with many hilly plateaus and pastures are favourable for the development of individual agricultural production and cattle-breading. A subcontinental climate considerably influenced by the mediterranean climate have made the whole area rich with vegetation and pastures.

Farming until 1956 was based exclusively on extensive agriculture. From that year onwards, different industries had developed, e.g. the textile industry oriented towards chemical industry, and industry of building material. One of its main directions of development is the agrarian production /wine growing and cattle-breading/ with a strong orientation towards production and processing of poultry meat. Today, industry contributes about 6o% to total national production. The central position of the commune on the peninsula, construction of new roads, especially the tunnel "Učka" have created preconditions for an even better development. The commune of Pazin with GNP of about US$ 3ooo per capita, belongs to the medium developed area in the SR of Croatia and Yugoslavia. From the territorial and self-managing point of view, the commune is divided in 2o local communities different in size and number of inhabitants /5ooo - 4ooo inhabitants/.

II. General data on the population

The territory of the commune, the town of Pazin, the urban settlement of Motovun, and 62 rural settlements and 654 villages count 19.412 inhabitants /35,7 inhabitants/km^2/. The town of Pazin /5ooo inhabitants/ is the administrative, industrial, economic and cultural centre of the commune. Basic characteristics of the changes in the population movement are shown in the following table:

Year	No of inhabitants	Number of births and Crude birth rate	Number of deaths and Crude death rate	Infant mortality rate
1953	25.864	...	...	...
1961	22.735	4o5 /17.8/	214 /9.5/	88.9
1971	2o.o73	295 /14.7/	241 /12.o/	8.5
1981	19.412	267 /13.8/	239 /12.3/	11.3

III. Age structure of the population /198o/

Age:	o-14 year	22.97%
	15-54 "	5o.22%
	55-64 "	12.93%
	65 and more	14.88%

Infants and small children	1.822
Primary school children /7-14 years/	2.o56
Secondary school children /15-18 "/	698

The increasing number of older people is significant for the health activity because of their special health, social and economic characteristics.

IV. Economic and social structure of the population

The commune of Pazin has about 6.5oo gainfully employed /men = 4.1oo, women = 2.4oo/, in industry 4.5oo /69%/ and in non-industrial sector 2.ooo /31%/. Among the employed workers about 7o% are in addition engaged in agriculture /small private farms/. About 3.5oo /16%/ inhabitants are living on agriculture as their sole source of income. As to the other categories of inhabitants there are 1.55o pensioners and invalids, 35o on social care and 82o members of the National Liberation War and National Liberation Movement.

V. Characteristics of population morbidity

Recorded morbidity in primary health care, corresponding epidemiological studies and register of chronic patient show that dominating are:

a/ among acute illnesses: respiratory diseases, injuries, neuroses, diseases of the digestive system;

b/ among chronic diseases: cardiovascular diseases, diseases of the locomotor system and bones, alcoholism, diseases of the CNS and senses. Diabetes and malignant neoplasms are on the increase.

Final diagnoses of diseases and conditions determined in primary health care activity in the Health Centre Pazin in 1981 are as follows:

"Final diagnoses" of diseases and health conditions
/Groups according to the Intern. Classification/

	Number
1/ Infectious and parasitic diseases	1.137
2/ Neoplasms	109
3/ Endocrine diseases, nutritional and metabolic diseases	142
4/ Blood and blood forming diseases	142
5/ Mental diseases	669
6/ Diseases of the CNS system and senses	1.848
7/ Diseases of the circulatory system	1.523
8/ Diseases of the respiratory system	10.664
9/ Diseases of the digestive system	1.523
10/ Diseases of the urinary and genital organs	1.288
11/ Complications in pregnancy, birth and puerperium	311
12/ Diseases of the skin and subcutaneous tissue	1.234
13/ Diseases of the bones and the locomotor system	
14/ Congenital malformations	32
15/ Diseases of early childhood	9
16/ Symptoms and ill-defined conditions	994
17/ Accidents and poisoning	2.212

VI. Health activity

On the territory of the commune of Pazin the health activity is organized in the form of a Health Centre - health working organization of primary health care. The Health Centre activity includes: 8 GP teams, 4 occupational health teams, one hygienic and epidemiologic team and one emergency unit /2 teams/. Stomatological activity makes part of the mentioned teams. For diagnostical purposes the Health Centre has a clinical laboratory, X-ray, and laboratory for functional diagnosis. The Health Centre also includes a service for physical therapy, dental-technical laboratory, a stationary /for temporary accomodation of patients/ and supporting technical and administrative services. There are 141 employed of which 15 physicians, 18 health technicians, 4o nurses, 7 senior nurses, 7 stomatologists, 1 engineer of medical biochemistry, 1 psychologist, 1 dietician, 7 stomatological assistants, 4 male-nurses, 3 midwives, and 37 workers in technical services. The organization of the health activity is based on the principle of integrated health care, team work, and accessibility as well as the active cooperation with health care users.

GP teams consist of one GP, one nurse and one public health nurses have their districts /local communities/. They are responsible for the planning, organization, implementation or coordination and provision of health care to the entire population /about 15oo - 2ooo inhabitants/.

Physicians in occupational health /in three larger work organizations/, school medicine /for schools in the town of Pazin/, and hygiene and epidemiology, together with their teams are working mostly in preventive medicine in coordination with GPs. For coordination of work and collaboration of teams of special significance are daily professional meetings of all physicians of the Health Centre as well as the socio-medical work of public health nurses.

Polyclinic-consiliary and stationary activity for the needs of the population is carried out by the Medical Centre Pula. Primary health care of the Health Centre satisfies over 88% of the users' demands.

VII. Health care programmes

Health care needs are determined by health workers and users pointly in work organizations, local communities and through delogates in SMIC assemblies /Self-managing communities of interest/. The health plans are for a medium-term /five-year/ or short-term /one-year/ period. These health plans specify different programmes:

1/ Programmes of workers' health care measures /primary and specific health care of workers/
2/ Programmes of health care measures in local communities /children, women, pensioners, invalids, war veterans, farmers and others/
3/ Programmes of measures in environmental health /joint programme worked out by the assembly of the commune/.

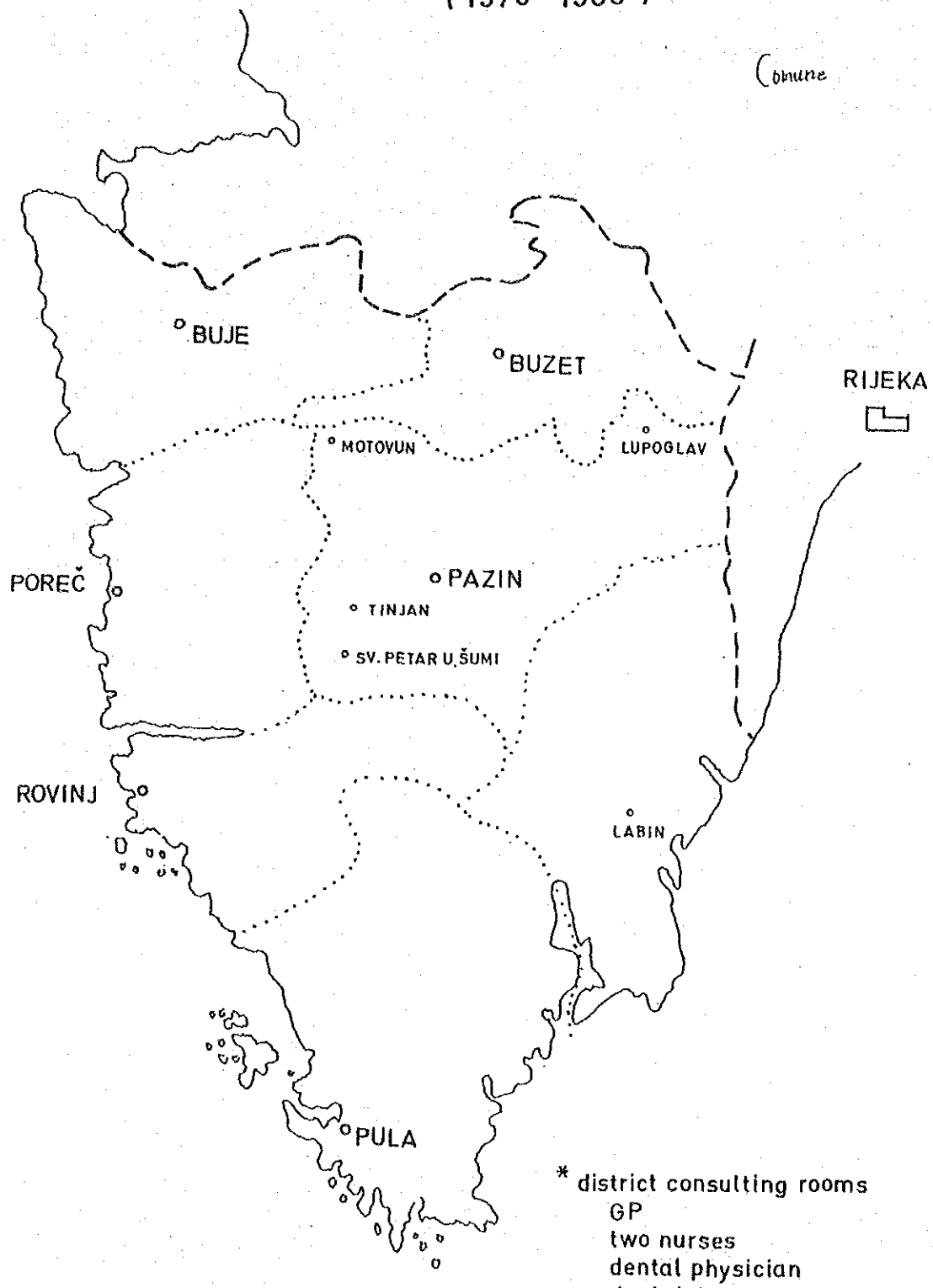
VIII. Special problems in health care and in health services

The dominating problems in the health care of the population are socio-health problems of elderly people, chronic patients and environmental health. These dominant problems are trying to be solved by better organizing home visiting service, programmes for timely detection, registration and follow-up of chronic patients, programmes of self-care and active users' participation.

Support to local communities and work organizations is also given to their sanitation programmes and collaboration with sanitary inspection and other bodies regarding watersupply, nutrition and handling of foodstuffs.

The health activity in principle relies upon local communities, however, dilemmas appear as to the selection of the best methods of practical work. In this sense there is a need for better education of health workers in the field of preventive activities. The health activity has to cope also its financial difficulties due to ever growing health demands of users and need for development /making health activities more accessible to users/. That is why a constant reassessment of specific programmes, methods and activities is needed.

SETTLEMENTS WITH DISTRICT CONSULTING ROOMS (1976-1985)



II. PRIMARY HEALTH CARE CONTENT IN THE COMMUNE OF PAZIN IN RELATION TO THE ALMA ATA DECLARATION

In relation to the Alma Ata Declaration (Article VIII/3) PHC in the commune of Pazin includes the following:

1. Training in relation to prevailing problems and methods of their prevention and control

   a/ sexual education within: "Prolonged course in health education" for children and youth of the VII and VIII class of primary school and I class of secondary school.

   b/ family planning - the same as under a/ and optionally for public-health nurses and competent physician.

   c/ motherhood - through the course "Mother and child" for all pregnant women. The course is run in small groups by nurses-midwives and public-health nurses.

   d/ nutrition and personal hygiene - pregnant woman (small groups with demonstrations)

   e/ nutrition, care and psychomotor development of infants - infant counseling service for all mothers during the child's first year of life.
   Method: six interviews and individual consultations and a group discussion (lo women) and demonstrations for all mothers.

   f/ personal hygiene and disease prevention - in children's nurseries according to the programme: "Health education in children's nurseries" for 50% of the children (1982).

g/ hygiene of mouth and teeth (for 50-60% of children) carried out by dentists in children's institutions.

h/ hygienic habits, growth and development, mental health, physical activity, chronic diseases through: "Prolonged course in health education" for all classes of primary school lasting 6-10 hours.

i/ corrective gymnastics for schoolchildren with anomalies of the locomotor system. In 1982, 250 children were covered.

j/ self-help, mutual aid and emergency services in the form of courses for all drivers amateurs, conscripts of civil defense in all local communities and work organizations

k/ prevention and control of chronic diseases for all persons in the production and transport of foodstuffs (500 users in 2 work organizations and 50 craftsmen) through: "Course on hygienic minimum".

l/ vocational guidance through courses for II class secondary schoolchildren (coverage - 300 schoolchildren in 1973).

m/ self-care against malignant neoplasms and chronic diseases through self-control and self-examination (breast self-examination and blood pressure measurements) (coverage - 400 persons).

n/ ad hoc prevailing problems (e.g. flu epidemic, rabies control, etc.) with total population coverage (written material, lectures in all local communities).

2. Improvement of adequate nutrition

a/ define and give practical instructions for nutrition of infants (including demonstrations)

b/ fix the menu and supervise nutrition in children's nurseries (once a month).

c/ fix the menu and supervise nutrition of schoolchildren in school kitchens by the nurse-dietician (once a month).

d/ fix the menu in dining halls in (4) work organizations

e/ food safety control and control of plants for production and transport of foodstuffs, in collaboration with work organizations, sanitary inspection and authorized PHC activity (for 3 industrial plants for production of food and 20 other public plants) according to a programme set up by the numicipal assembly every year.

f/ instruct chronic patients regarding their diet (hypertonics, diabetics, etc.).

3. Adequate safe water supply

The population of the commune of Pazin is supplied with water from the following sources:

- regional waterworks (70% of the population)
- local waterworks and cappings (18% of the population)
- private and public cisterns (lo-12% of the population).

Regional waterworks (Istrian) supervises this water.

For local waterworks, cappings and public cisterns (total of 5o projects) the following is done: bacteriological analysis, desinfection if

collaboration with the health service, local community according to uniform programme for the whole commune.

Register and files for these projects with records of undertaken measures are kept at the Health Centre.

Cleaning and desinfection of private cisterns is done by users themselves in collaboration and under the instructions and supervision of sanitary technicians of the PHC activity.

4. Mother and child health care

For the PHC needs of 4.430 women in the fertile age of which there are on the average 270 the following measures are undertaken regularly:

- courses in hygiene during pregnancy
- 7-8 examinations by physicians for control of pregnancy
- control of risk pregnancies (on the average 40-50 pregnant women) by regular examinations by PHC physicians and gynecologists
- control of risk pregnancies by public-health nurses (150-200 home visits)
- control of contraception consumption (hormonal) in about 300 women
- periodical examination of women with chronic diseases (according to the register 120 cases) and group work (3 groups)
- public-health work after childbirth (on the average 1-2 home visits of public-health nurses)

- control of examinations of infants - on the average 6 times determining the psychomotor development (100% coverage)
- register and medical record files for congenital anomalies, perinatal damages and group work with parents
- sanitary control of all facilities for preschool and schoolchildren by regular visits.
- detection of orthodontic anomalies and teeth care of preschool and schoolchildren (compulsory one-year systematic examination).

5. Vaccination against main infectious diseases

Is carried out continuously and according to a special programme worked out at the beginning of every year. It is organized in collaboration with parents and children's institutions and schools. Every child possesses a certificate on immunization and the health service is keeping the files

First vaccination

·ccination against	year	No of children	No of vaccinated	%of vaccin
·te-per	1980	255	237	93%
·io troval.	1980	272	260	95%
·te	1980	17	17	100%
·.P.	1980	272	214	79%

·accination of schoolchildren

·te-per proadultes	I class	236	220	93%
·io troval.	I & VI cl	476	459	96%
·-ter	I & VI cl	240	236	98%
·-te	IV CUOU	61	59	97%
·dili	I cl.	247	238	96%
·eola	VIII cl.	127	121	95%

6. Prevention and control of local endemic diseases

The municipal assembly and the health service (Health Centre) produce every year the "Programme of sanitary antiepidemic measures" (joint needs in protection of health). It contains:

a/ measures and tasks for prevention and control of infectious diseases which include:
- recording every infectious disease
- clinical and bacteriological analysis of every patient suffering from enteric and other diseases
- keeping a file and control of carriers
- registering and preventing diseases occuring periodically (flu)
- systematic general and overall rat poisoning of all public buildings and surfaces twice a year (of which there is a file) in the health service
- sanitary inspection of facilities for waste matter disposal (total of 12 facilities).

7. Treatment of frequent diseases and injuries

In the structure of population morbidity chronic degenerative diseases dominate, just as in developed areas (heart diseases, vascular diseases, rheumatic diseases, diabetes, malignant neoplasms, injuries, respiratory diseases, etc.) Primary health care of chronic patients consists in:
- organized keeping of records, register and medical record files of all patients suffering from: congenital anomalies, perinatal damages, chronic diseases which exceed the prevalence of 0.25% of the total number of inhabitants (according to general epidemiological indications).

Registers and medical record files are kept in consulting rooms of PHC teams (operational registers) and for needs of the whole commune (central registers and medical record files with a total of 3,200 patients by the end of 1982).

b/ Continuing follow-up (treatment and rehabilitation) with active collaboration of patients (self-care groups of hypertonics, diabetics, alcoholics, epileptics, etc. - about 300 patients).
Organized periodical and control examinations and interventions in consulting rooms (about 50% of services in GP consulting rooms are used by chronic patients) and home treatment and care carried out by public-health nurses or physicians (about 9,000 services annually). Services in the consulting room: first and second examinations - 5-5.6 and other services 4.2 per user.

8. Supply of essential drugs

The population is supplied regularly during the whole day in the Health Centre, supply points in three local communities by prescription (all drugs on the list) and over-the-counter drugs whose effect is known to users (antipiretics, analgetics, various creams).

Physicians use the list of drugs which is periodically issued by the Institute for drugs as well as the list of the Association of health insurance. These lists contain a little more generic names than the well-known list: "Selection of essential drugs" issued by the WHO Expert Committee (1979).

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as members of

CENTRE FOR HEALTH COOPERATION WITH
NON-ALIGNED AND DEVELOPING COUNTRIES
Z A G R E B

Project: Continuing education for primary health care

PROPOSAL FOR SAMPLE OF USERS
Sample size, dynamics of spreading by stages

Zagreb, April 1985

INTRODUCTION

This study is based on the needs of the Socialist Republic of Croatia, but there is a possibility to be extended also to the other parts of Socialist Federal Republic of Yugoslavia. Two kits are required for each of other seven Republics/provinces (one in the center and the other in rural region, connected with the center) what makes totally fourteen.

SAMPLE IN SOCIALIST REPUBLIC OF CROATIA

1. Gradual spreading of the new system of primary health care is anticipated.
Sample in two stages may be chosen. In final stage of complete realization the system is expected to include almost all users. It is very important to determine precisely the first stage, when a small number of users is included. In this first stage the following conditions should be satisfied:

1.1. One part of the system, for experimental purposes, to be located in Zagreb, being the center of the study: in Medical School, Institute for Organization and Economics of Health, "Andrija Štampar" School of Public Health.

1.2. To set up a network of users in the field in such a way that all regions of Socialist Republic of Croatia are included (the inland and the seaside, main regional centers as well as rural areas). In this first stage it is advisable to choose the most cooperative and advanced teams for cooperation locations, in order to introduce and set up the system.

2. When passing to the third stage - in which the whole sample - maximum number of users is included, we had in mind the

the following determinative factors:

2.1. According to statistics for 1982 there were 107 "working organizations" in primary health care (26 Medical*) Centers and 81 Primary health care centers)* while the number of video recorders is 70 or even 60. That means that each Primary health care unit can not be supplied with its own system. It is important to emphasize that Primary health care Units which are supplied "gratis" with necessary video equipment will be motivated to subscribe to video journals.

2.2. When working on the pattern and trying to determine the best locations for video equipment the following factors most be taken in consideration:

1. territorial areas set-up (groups of communes)
2. four regions
3. regional centers and rural areas to be included
4. communication problems (in some areas the system can be distributed and transfered to neighbouring educational units, while some areas are in a certain sense isolated - the islands)
5. in which premises the equipment will be installed (according to some information the Medical Association premises, health and/or medical centres, schools etc. will be used)
6. number of health workers who will use the system, in each educational unit
7. number of inhabitants - users of health care

* Health Centre is out of hospital
* Medical Centre is intercrated health institution which consists of Health Centre and Hospital.

8. corrections which are to be made (some distant educational units should be supplied with the equipment, although the size of the unit is small; in some areas the natural gravitation must be taken into account when choosing the most suitable location)

9. mobile systems to be anticipated, which will be transfered according to agreed skedule (two months here and two months there)

10. stimulate the users' not included in the sample to purchase the video recorder which are not so expensive, through Selfmanaging Community of Interest (Republic Selfmanaging Community of Interest, Associated Selfmanaging Community of Interest and local Selfmanaging Community of Interest) and get them to subscribe.

3. Primary health care includes:
   1. medical part
   2. stomatological part
   3. pharmaceutical part

3.1. Medical part includes:
   1. General medicine
   2. Emergency care
   3. Health care for infants and preschool children
   4. Health care for school children and youth
   5. Occupational health (for employced)

Obviously, different reactions can be expected from all above mentioned profiles of health workers and probably there were no closer relations between them so far. At the same time, a well organized communication system is now expected to be set up among all branches of primary health care by means of video/computer equipment.
The following system of vertical communication is expected to be realized:

childrens' health care	school health care	general medicine, occupational health

and exchange of information on below stated levels:

emergency	childrens' health care
emergency	school health care
emergency	general medicine
emergency	occupational medicine
and general medicine	occupational health

Such communication system would surely contribute to more efficient treatment of patients, specially when families are in question.
Medical Centers are considered particularly suitable locations, disposing also with hospital wards, what means that almost complete health peronnes of the area would be exposed to programme.

3.2. STOMATOLOGIST sometimes seem to be forgoten (different school, indipendent job, etc.), although their job is of enormous importance in primary health care (discovering of pathological chauges including carsinoms in oral cavity, prevention of deformities and caries).
Since dentist ambulances, if any, are always located in Primary Health Care Centers (they are never isolated units), they will cetainly have a chauce to use video recorders, located in Primary Health Care Centers, but it is important to make the programmes interesting for them.

3.3. The situation is completely different with pharmacists, since pharmacies are often indipendent units, in relation to Primary Health Care Centers and Medical Centers. Anyway, it is expected that professionals from pharmacies and all similar

indipendent health stations are invited by Primary Health Care Centers and Medical Centers to join a new system and to start using video recorders.
There will be no problem in realization of such sollaboration, specially in middle sized towns with Medical Centers and in smaller towns with Primary Health Care Centers.
Naturally, in video journals a special column should be aticipated, dealing with matters interesting for them (medicines, lists, magisterij).

4. Some dilemmas and suggestions for their settlement

to each part of this study certain dilemmas have been outlined.

4.1. Dilemmas to be solved are the following:

DILEMMA No 1: IMPLEMENTATION STAGES:

a) whether to start the system with a small number of users and spread it little by little, or

b) try to include soonest possible all of them.

From the expert point of view the first version is better since it enables the feasibility and being pilot, but for financial needs subscribtions) the others should be included soonest possible. That means, pilot I should be applied only for 4-5 numbers of video journal, when it is necessary to pass to pilot II, and then the system should be gradually spread within one year. All users are expected to be included until the second year of project.

IMPLEMENTATION STAGES IN RELATIONS TO THE SAMPLE

4.1.1. The first stage - pilot I

1. To test ways and methods of accepting information; main reactions to the offered forms, topics, etc.

2. To develop models of team-work. Not only when exchanging interesting experiance, but also when represhing

of knowledge in various subjects such as from the emergency care; it is advisable to work in a team, including the experts for emergency care (general medicine, Occupational Health and Child Health Care), what means those working in a big center (Zagreb), dealing with the emergency cases in their everyday job, and those who rarely meet such cases special attention to those in PHC, who are in isolated distant locations and have to deal with emergency care although they may even be rarely exposed to it.

The f i r s t s t a g e - pilot I (11-13 recorders)

The system to be locate- primary in Zagreb, in the following institutions:

	Number of recorders
A) ZAGREB	
1. Medical School, "A.Štampar" School of Public Health, Institute for Organization and Economics of Health	4
2. Primary Health Center (in Novi Zagreb, Trešnjevka, Zaprešić)	3
B) OUT OF ZAGREB	
3. Selected unite in the field:	
Benkovac	1
Labin	1
Pazin	1
Županja	1
Zadar	1
Varaždin	1

4.1.2. The s e c o n d s t a g e - pilot 2 (8 recorders)

To include all region units, i.e.:		Number of recorders
1. Region centers:	Osijek	1
	Split	1
	Rijeka	1
2. Centers of microregions:	Zadar	1
Periphery (rural area):	Senj	2
	Makarska	

4.1.3. The t h i r d s t a g e:

Gradual inclusion of all planned units in the Republic. See page No

DILEMMA No. 2: Spreading through Socialist Federal Republic of Yugoslavia

Whether to distribute all recorders, or keep 2 systems for each republic and 1 for each Autonomous province. Concerning the ambitious plans for spreading the project it results necessary to keep them from technical and financial point of view. It means 14 recorders should be kept aside.

4.3. Pattern with regard to the users

Pattern can be applied in several levels, depending on the structure of users (in wider sense), what will surely influence the way of making and the use of video journal.

1. Big centers with faculties: beside primary health workers also the following structures actively participate in making video journals:

- university professors (Medical school, School of dental medicine, Pharmaceutical school and Higher medical school)
- students
- postgraduate students (not only in primary health care - proposed tape "Primary health care to colleagues of other specialities")
- specialists in other branches of medicine
- nurses and other allied health personnel
- population (various clubs for protection: blood pressure, sugar, alcoholism, etc.)

That means, three levels can be defined:

1. inside primary health care: present and future health care workers (students and postgraduate students).

2. messages to the other specialists for better collaboration and distribution of work (it would have been ideal to develop certain parts of video journal jointly to be them used by secondary care).

3. for the purpose of health education of population

Besides, when making choosing locations decision on the sample, the number of physicians in primary health care was taken into account. There are 10 areas (groups of communes) in Socialist Republic of Croatia with different numbers of health units, physicians, stomatologists and pharmacists in primary health care. Total number of physicians in this regions was also considered, as well as the number of inhabitants using health care. Anyway, final goal of the Project always remains to improve services offered to population and to make them actively included into the mechanism of joint protection (table No.1).

Table No. 1

ANALYSES OF THE NETWORK OF HEALTH UNITS IN COMMUNITY ASSOCIATION IN 1982 REQUIRED FOR MAKING PATTERN FOR CONTINUING EDUCATION IN PRIMARY HEALTH CARE*

List of Areas (Group of Communes)	Number of communes	Number of Health working organizations	Number of primary health care units	Physicians in primary health care	Total number of physicians	Stomatologist	Pharmaceuts	Inhabitants
1. Bjelovar	10	13	65	125	482	103	86	370.916
2. Gospić	5	7	18	27	69	28	15	90.336
3. Karlovac	6	12	42	68	253	58	59	172.144
4. Osijek	14	21	142	257	1096	219	237	867.646
5. Rijeka	19	36	141	253	1244	220	214	540.485
6. Sisak	6	8	36	72	302	55	54	199.790
7. Split	22	60	168	322	1399	286	287	882.050
8. Varaždin	5	12	53	95	428	80	78	303.590
9. G.Z. Zagreb	14	51	133	348	2722	498	507	855.568
10. Zagreb	12	20	63	124	353	93	87	318.944
		240	861	1691	8348	1640	1624	4,601.469

* According to statistics from 1981, Statistics Annual

Information resource: Indicators of health status of population and the work of the health care system of SRH in 1982, Institute for Public Health of SRH in 1984

Table No. 2

HEALTH CARE INSTITUTIONS NETWORK IN AREAS (GROUPS OF COMMUNES) (in 1982)

List of areas (Group of communes)	Primary health care	Secondary health care	Institutes	Others
1. Bjelovar	4	2		
	6			
	1			
2. Gospić	1			
	3	1		
	2			
3. Karlovac	2			
	3	1		
	2			
4. Osijek	7			
	6			
	1			
	1			
	1			1
	4			
5. Rijeka	2	1	2	2
	7	1		
	1	6		
	5	1		
6. Sisak	3			
	3			
	2			
7. Split	4	1	1	
	16	6		
	8			
	12			
	12			
8. Varaždin	2	2		
	3			
	1			
	4			

List of areas (Group of communes)	Primary health care	Secondary health care	Institutes	Others
9. GZO Zagreb	13	4		
	5	3		
	2	11		
	1	2		
	3		2	10
10. Zagreb	1			
	11	3		
	2			
	3			

Information resource: Indicators of the situation and quality of work in health system of SRH in 1982
Institute for health protection of SRH in 1984

3. The t h i r d s t a g e: Distribution of the remaining recorders. Each area should be supplied with one recorder, that is:

Table No. 3 DISTRIBUTION OF VIDEO RECORDERS PER AREAS (GROUPS OF COMMUNES)

Area - groups of communes	Supplied with recorders in stage 1 or 2	Recorders to be supplied in this stage
Bjelovar	-	1
Gospić	-	1
Karlovac	-	1
Osijek	+	
Rijeka	+	
Sisak	-	1
Split	+	
Varaždin	+	
Zagreb, city	+	
Zagreb area outside the city	-	1
In 3rd stage required total of		5

Since some of areas (groups of communes) are bigger than the others, and some of them would be supplied in the second stage, what means that they are better equipped than the others (with regard to the number of physicians - users of video journal and regional distribution) it is suggested to continue distribution of the recorders until all medical centers in Socialist Republic of Croatia (26 of them) are supplied. If medical centers and health center have indipendent health stations or pharmacies on their territory they are expected to include them in the use of video journal for continuing education in primary health care. See table No. 4.

Table no. 4

LOCATIONS OF VIDEO RECORDERS IN AREAS (GROUPS OF COMMUNES) AND MEDICAL CENTERS WITH INDICATION OF TOTAL SAMPLE, RESULTING FROM STAGES 1,2 and 3

Area (groups of communes)	Health organization	No. of health workers	No. of video recorders
BJELOVAR			4
	1. M.C.* Emilija Holek, Bjelovar ZS Željezničar	573	1
	2. M.C. Virovitica	440	1
	3. M.C. Tomislav Barlek, Koprivnica pharmacy	654	1
	4. M.C. Pakrac	298	1
GOSPIĆ			1
	1. M.C. Gospić	200	1
KARLOVAC			2
	1. M.C. Duga Resa	135	1
	2. M.C. Dr. D. Dragulić-Puba Karlovac	856	1
ZO OSIJEK			9
	1. M.C. Našice	244	1
	2. M.C. Dr. A. Štampar, N.Gradiška	364	1
	3. Medical Faculty, Osijek	-	
	4. DZ/MC** Osijek -pharmacy Osijek -emergency station -polyclinic	558	
	5. M.C. Slavonska Požega -pharmacy S.Požega	443	
	6. M.C. Slavonski Brod ***ZS D. Daković	859	1
	7. M.C. Vinkovci	622	1
	8. M.C. Vukovar	556	1
	9. DZ/MC Županja	118	1

*M.C. = Medical Center

**DZ/MC= Primary Health Care Center

***ZS = Health Station - PHC Unit

continuation - table 4

1	2	3	4
RIJEKA			8
	1. Medical Faculty Rijeka	-	
	2. DZ Rijeka		1
	-ZS Željezničar		
	-pharmacy Jadran		
	-emergency station	1042	
	3. MC Pula		1
	-pharmacy Pula		
	-Institute for health protection	1006	
	4. MC Ogulin		1
	-pharmacy Ogulin		
	-ZS Željezničar	316	
	5. DZ Labin	125	1
	6. DZ Pazin	95	1
	7. DZ Umag		
	- pharmacy Umag	115	1
	8. DZ Senj	47	1
ZO SISAK			3
	1. MC Glina	113	1
	2. MC Petrinja	279	1
	3. MC Sisak	815	1
SPLIT			10
	1. DZ Benkovac		
	-pharmacy Benkovac	59	1
	2. MC Dubrovnik		1
	-ZS Babin Kuk		
	-pharmcy Dubrovnik	591	
	3. MC Knin	340	1
	4. DZ Korčula		
	--regional stations		
	ZS Blato		
	ZS Smokvica		
	ZS Vela Luka		
	ZS Orebić		
	Pharmacy Korčula		
	Pharmacy Blato	113	

continuation - table 4

	5. DZ Makarska -pharmacy	132	1
	6. Medical Faculty Split		1
	7. DZ Petar Vilerica, Split -ZS Brodosplit -Town pharmacy	1069	1
	8. MC Šibenik -ZS Boris Kidrič -Pharmacy -ZS Željezničar	844	1
	9. MC Zadar -ZS Vinilplastika -ZSVlado Bagat -ZS Boris Kidrič -Pharmacy Zadar	1058	1
	10. Movable types for the islands		1
ZO VARAŽDIN			2
	1. MC Čakovec -pharmacy Čakovec	605	1
	2. MC Varaždin -pharmacy DR Gaj -ZS Varteks -ZS Željezničar	1084	1
ZAGREB CITY*			9
	1. DZ Željezničar + ambulance Hanuševa 6 and Square of F. Republic	154	1
	2. DZ Novi Zagreb	344	1
	3. DZ Trešnjevka	314	1
	4. DZ Zaprešić	125	1
ZO ZAGREB OUTSIDE CITY			2
	1. MC Cvijeta Huis, Zabok + pharmacy Zabok ZS Zabok	246	1
	2. DZ Krapina - pharmacy -regional stations Pregrada/Straža/	133	1

*for details see table 5: Summary of Zagreb

Table 5 SAMPLE - SUMMARY BY AREA WITH INDICATION OF COVERAGE

AREA	Included health organization	No.of health workers	Health workers included	%	No. of video recorders
BJELOVAR	4	2494	1965	79	4
Gospić	1	420	200	48	1
Karlovac	2	1279	991	77.5	2
Osijek*	9	5790	3646	65.01	9
Rijeka*	8	5931	2555	44	8
Sisak	3	1391	1207	87	3
Split	9	7049	4207	60	10
Varaždin	2	2373	1689	71.2	2
Zagrebcity**	9	12582	-	-	10
Zagreb out of city	2	1968	246	19.2	2

* Comment
(Osijek, Rijeka, Split get another recorder for the Medical faculty. The number of helath professionals covered that way has not been calcultated. The assumption is that it would raize the percentage significantly. It is important to emphasize that in Rijeka practically 85% of PHC workers are already covered by including major PHC Centre.

**
Zagreb city is another specificity. It has 14 major PHCC, one smaller PHCC, 4 Primary health care units, several public health research and other institutes etc. Sea summary for Zagreb, table 6.

Table 6 - Sample -

SUMMARY FOR ZAGREB

In Zagreb	Medical Faculty	1
	Faculty of Stomatology	1
	Pharmaceutical Faculty	1
	Centre SUVAG	2 mobile
	DZ Novi Zagreb	1
	- Trešnjevka	1
	- Zaprešić	1
	- Železničar	1
	Andrija Štampar School of Public Health	1 + 1 mobile
	Institute for organizationa and economics of health	1
	ZAGREB TOTAL	10

CONCLUSION

Total number of allocated in Socialist Republic of Croatia is 47

If other republics are supplied:

a) in one of the next stages, or

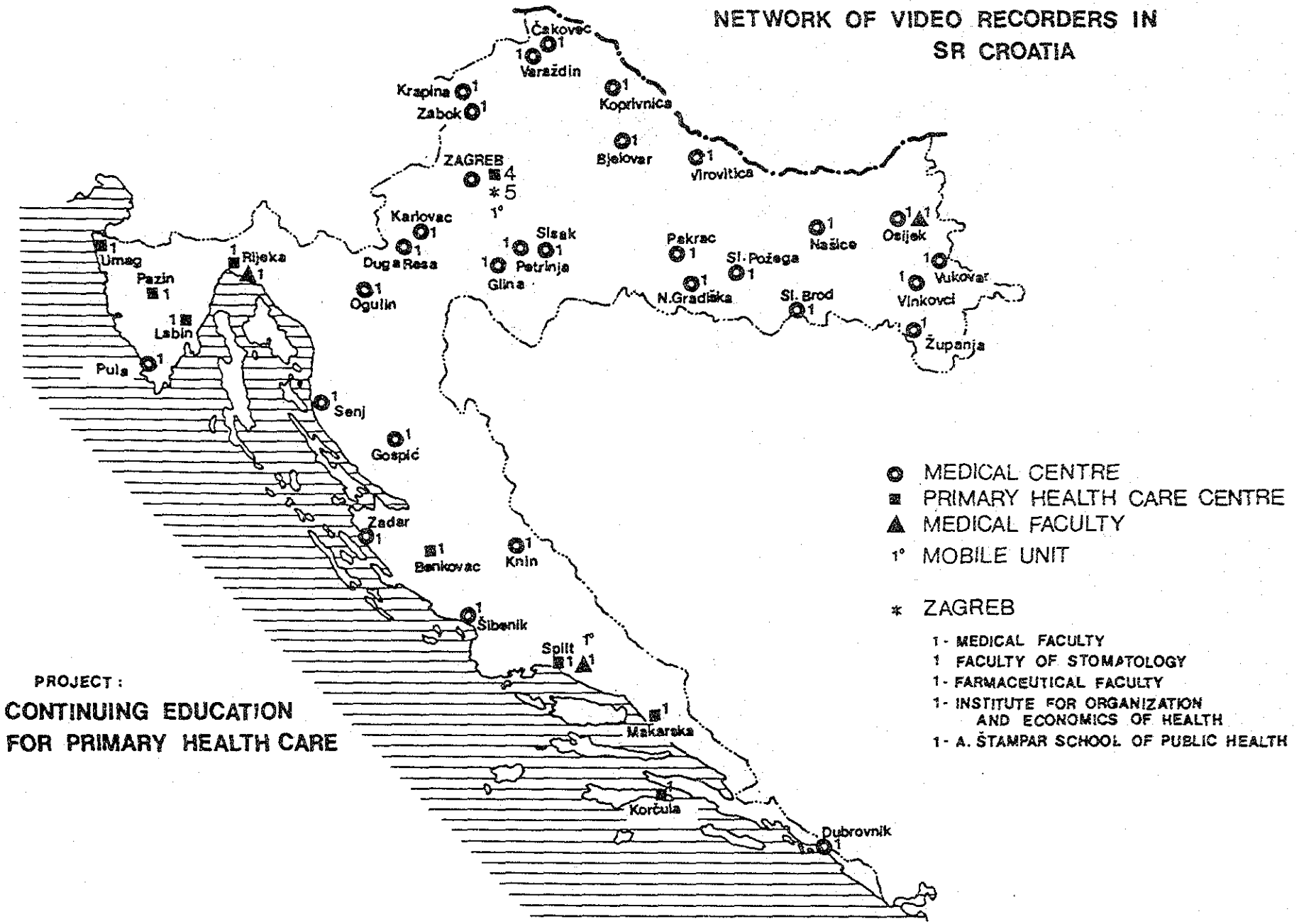
b) if they buy recorders by themselves

Suggestion for their distribution:

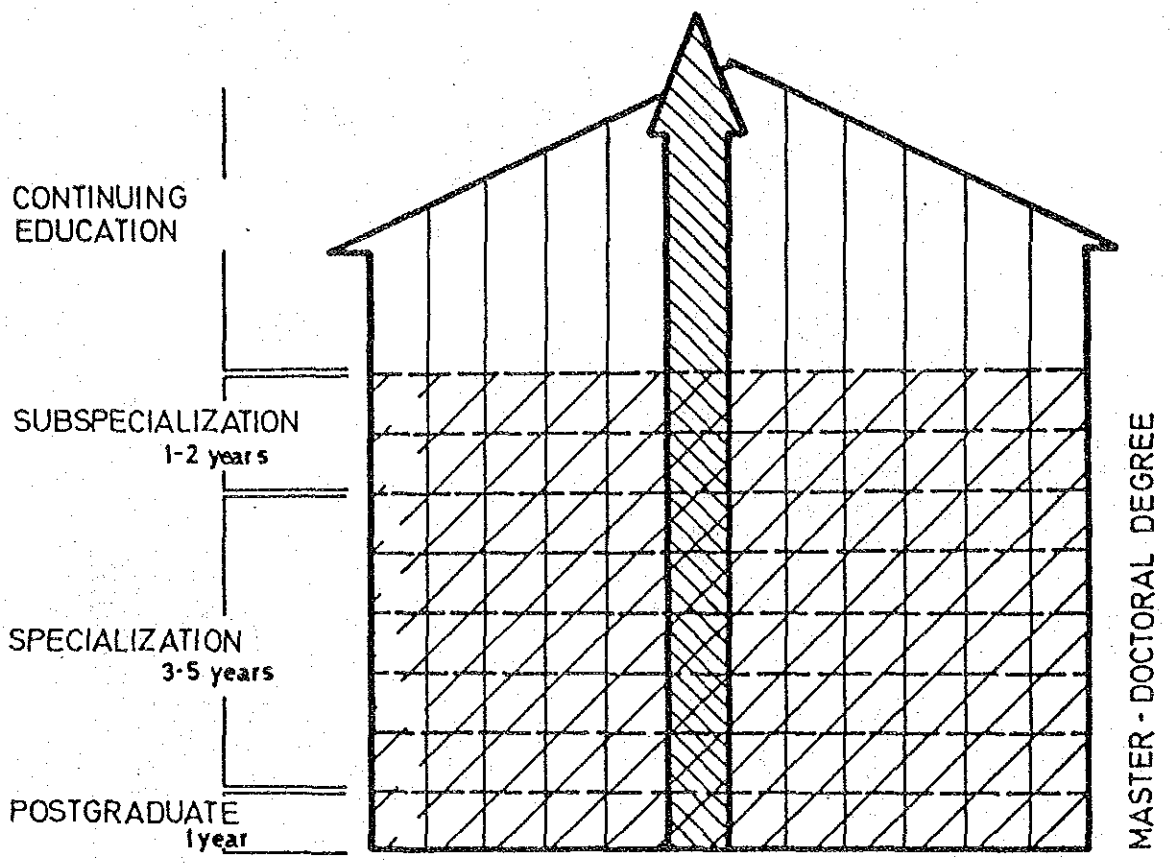
- to keep 2 recorders in reserve
- from remaining 7 : 4 mobile types deliver to "A.Štampar" School of Public Health for field and Zagreb DZ - s

1 mobile type to be delivered to each region.

NOTE: Mobile recorders located in "A.Štampar" School of Public Health will be used, before all, by Primary Health Care Centres (DZ) in Zagreb, and occasionally for experiments, demonstrations, etc.


NETWORK OF VIDEO RECORDERS IN SR CROATIA
Čakovec
Varaždin
Koprivnica
Krapina
Zabok
ZAGREB
4
*5
1°
Bjelovar
Virovitica
Karlovac
Sisak
Petrinja
Glina
Dugo Resa
Ogulin
Pakrac
Našice
Sl. Požega
N.Gradiška
Sl. Brod
Osijek
Vukovar
Vinkovci
Županja
Umag
Pazin
Rijeka
Labin
Pula
Senj
Gospić
Zadar
Benkovac
Knin
Šibenik
Split
Makarska
Korčula
Dubrovnik
MEDICAL CENTRE
PRIMARY HEALTH CARE CENTRE
MEDICAL FACULTY
1° MOBILE UNIT
* ZAGREB
1 - MEDICAL FACULTY
1 FACULTY OF STOMATOLOGY
1 - FARMACEUTICAL FACULTY
1 - INSTITUTE FOR ORGANIZATION AND ECONOMICS OF HEALTH
1 - A. ŠTAMPAR SCHOOL OF PUBLIC HEALTH
PROJECT :
CONTINUING EDUCATION FOR PRIMARY HEALTH CARE

SCIENTIFIC AND PROFESSIONAL EDUCATION OF PHYSICIANS



LEGEND:

SCIENTIFIC DEGREES MASTER AND DOCTORATE

SPECIALIZATION INCLUDING ONE YEAR POSTGRADUATE

"A. ŠTAMPAR", SCHOOL OF PUBLIC HEALTH,
MEDICAL SCHOOL, UNIVERSITY OF ZAGREB
ZAGREB

INSTITUTE FOR ORGANIZATION
AND ECONOMICS OF HEALTH
ZAGREB

as members of

CENTRE FOR HEALTH COOPERATION WITH
NON-ALIGNED AND DEVELOPING COUNTRIES
Z A G R E B

Research Project: CONTINUING EDUCATION
FOR PRIMARY HEALTH CARE

FEED - BACK AND EVALUATION METHODS AND PROCEDURES

Zagreb, August 1985

FEED-BACK AND EVALUATION METHODS AND PROCEDURES

INTRODUCTION

The main assumption of the Project is that the continuous education will be successful if the users will be involved as the main subject of the system. They should participate not only proposing subjects to be tackled, but also providing the experiences from practice and in that way building the appropriate structure of thoughts and paradigm in solving medical and health problems. The new knowledge and skills should not destroy, but support, enlarge and improve their own way of thinking and practical experiences. According with some of the results in research of adult education, it should reinterpret the experiences if they are not in accordance with the contemporary scientific interpretations, but it should not negate the fact or impose new ways of thinking, coming from experiences which are strange to the practice of primary health care. Because of that demonstration of good practices and explanations will be the most important educational methods.

Because of the described basic assumptions the role of feed-back mechanisms and evaluation methods build-in the Project makes essential part of it, guiding the whole educational process and not just measuring the achievement of the educational efforts based on preconceived educational objectives.

OBJECTIVES

The evaluation and feed-back mechanisms in the Poject have to fulfill the following objectives:

1. to involve the users in the process;
2. to provide the subject areas for continuous education;
3. to provide the essential (core) problem-solving paradigm;
4. to help in discovering the main constraints in implementation of qualitative services;
5. to identify the communication problems in the system;
6. to measure overall achievements of the Project (coverage, attitudes, results in practice).

CRITERIA AND EXPECTED CHOOSING CONSTRAINTS

In discussing and choosing different evaluation and feed-back method the following criteria are proposed:

1. do the methods help the learning process;
2. do the methods help participation and involvement of users;
3. do the methods fulfill time limits and balance the time economy;
4. are the methods feasible under conditions of the Project (criterion of efficiency);
5. the method should be valid (dealing with important issues) and realiable (allowing comparability in time and among the the observed units);

In spite of all these criteria and,especially because of ones listed under number (3) and (4), the evaluation and feed-back methods have to be simple. A compromising trade-off has to be foreseen. The perfectionism in methodology should be avoided. The adaptivness and flexibility has to be stressed. Among other reasons the concept is important of the realistic estimates of environment in which the Project is operating (an open social system reflecting all kinds of historic, cultural, developmental characteristics and position and difficulties of existing health services, health economics, etc.).

Among the expected constraints one can list the following based on experiences and some research existing in the area:

- rather low and short lasting motivation in spite of initial interests;
- rather high sensitivity to failures of the system trying to blame "the system" for poor own performance;
- very wide range of individual experiences and attitudes as well as conditions of work so that not all can be satisfied in one time;
- preference for the "passive" educational methods and technical information in spite of understanding that it is mostly inappropriate and inefficient in comparison with proposed "active" methods, like problem solving, etc.

THREE AREAS IN APPLICATION OF EVALUATION AND FEED-BACK METHODS

In planning the educational programme of the Project there are three areas in which the evaluation and feed-back methods have to be further considered and elaborated:

1. feed-back methods built into the AV teaching materials;
2. formative evaluation during the production of AV materials;
3. evaluation of the Project as the whole (mostly described already in previous documents).

In the following part the ideas identified dilemmas are listed for purposes of stimulating more of new initiatives, considering the existing ones and solving the dilemmas. Overall purpose is to design realistically, especially based on experiences in different similar projects, the feed-back and evaluation system for the first year of the implementation of the Project.

FEED-BACK METHODS BUILT INTO THE AV TEACHING MATERIALS

The regular AV materials (the AV Journal) will represent a combination of different educational methods of which three will dominate:

- information (with different degrees of explanation);
- demonstration (how the problems are solved in practice and/or which difficulties are experienced);
- problem-solving exercises (with typical circles: real practical case-problem identification, alternative solutions, testing solutions in practice, comments and explanations).

In all forms there will be the opportunity for active participation of users what in itself is a kind of feed-back; e.g. an special effort should be to collect information from the field and not only from the scientific sources or teching institutions. The demonstration method will be mostly based on positive experiences in the practice in application of different programmes and problems connected with implementation. Among the most difficult is the problem solving because it should involve "both sides": experts of different disciplines and the workers in practice.

A special opportunity for active and problem solving method is the application of the AV materials in the groups. The problem solving in that way is not only individual but a team approach and group dynamics are involved. The feasibility and effectivness of that method has to be tested. In some occasions the " competitivness" which is involved might be a destructive element, as in other occasions it might be extremly efficient.

The different types of subjects continuous education has to deal with are expected to have different relation to the described AV methods. The classification schematically should separate: clinical health problems (individual diagnostic and treatment problems), communication problems (especially between people and health workers), and health programmes implementation problems (mostly dealing with health promotion and prevention in groups and communities). So far the problem-solving approach is most developed for the first group (clinical health problems), and scarcely for other two. The AV method by its very nature is most effective for conveying messages about the second group (communication problems), but there are only general experiences, e.g. TV news, with the third group. Obviously the problems of feed-back are not simple and experimental application is needed of different techniques such as "role-playing in groups", panel discussions

based on demonstration of practical experiences, etc. For the third group (health programme implementation) the demonstration would be obviously the preferable methods, but again for feed-back different methods have to be developed such as a modified "critical incident" method, "competition" for best quality or efficiency, results reported of small projects, etc.

One of the problems connected with the problem-solving is the complexity of many problems and existance of multiple "correct" solutions. This situation is not educationally productive. An effort has to be made that not all the solutions are acceptable, what is often very difficult. Experiences are needed with criteria applicable to the real life situation and avoiding the black/white approach.

The ways of feed-back envisaged so far are several:

- tests and questionaries (paper through post, AV summary);
- reports and descriptions (paper through post, AV by EMC);
- reports on group education effort (paper, AV by observers);
- comments and reaction to the problems (paper, AV by EMC or themselves);
- panel discussions (AV by EMC);
- project reports and demonstrations (AV by EMC).

For the time being there is not possibility to have it "on line" and the problem of time-lag and time coordination will be a considerable one. This is especially important for the "problem-solving circle" which has to involve users in several steps in a definitive order.

The organizational aspects for providing feed-back are considerable. It would be important to plan involvement of some health authorities so that the health programme and clinical method which are suggested through the system are followed by provision of adequate materials and economic support. This opens the whole new area of activities which are peculiar for the existing health system in the country. It is also connected with the rewarding aspects of the continuous education which has to be solved gradually. The balance between positive and negative approaches has to be in favour of positive.

FORMATIVE EVALUATION DURING THE PRODUCTION OF THE AV MATERIALS

The tentative schedule for the evaluation of the AV material during its production was considered in several previous materials. The list of participants (editorial board) and the flow-chart how the AV material has to be produced have been developed.

Along with experiences it would be necessary to revise and simplify the proposed scheme and also to clear some of the dilemmas which have not been solved:

- how much of authors' freedom is possible, and what should be the Project policy;
- relation of technical experts in different medical discipline and educational and AV experts;
- involvement of users during the formative evaluation.

So far it was experienced that it is a tendency to establish clumpsy bodies of different representatives of experts, which are often destructive by "wise" comments and ideas of different kinds, resulting in paralysing the creative workers and favourising the ineffective bureaucratic and neutral materials.

The internal testing during the production is not yet solved. Should it be : students, practicing users, experts, a mixture, should it be individual or group (collective), how much formal should it be? Should it be done always in the same way? Should the group of evaluators be the same or changed?

A special problem is the hidden curriculum by which all the subjects during one year have to be combined.

EVALUATION OF THE PROJECT AS THE WHOLE

As it was mentioned the major part of evaluation methodology for the Project as the whole was already discussed and defined.

From this it is clear it was accepted the evaluation should be more of the action-type research than formal evaluation by comparison before/after or even less of comparison involved/non-involved. Because this is not usual and because it is important to be cleared before the Project starts, a reconsideration might be necessary. The criteria mentioned at the beginning of this paper are very important for this part also. One additional criterion, however, appears here, i.e. the extrapolation of experiences of the Project to other situation. In that connection it was also realized that a considerable part of scientific research would be needed for the successful implementation of the Project and in that sense one should an addition consider the proposed scientific research approach as a part of the overall evaluation of the Project.