CHAPTER 13
BASELINE SURVEY

13. BASELINE SURVEY

13.1 Preparation of Baseline Survey

A baseline survey is being carried out aiming at (i) detailed identification of conditions prevailing throughout Uzbekistan in general and on a region-wise basis in particular, (ii) supplementary collection of data, and (iii) application of the same to formulating a future framework for improving health care and medical services under the Master Plan. Where appropriate, a portion of the study tasks will be subcontracted to local consultants. A demarcation of tasks to be directly carried out by the Study Team and tasks to be subcontracted to local consultants is given below.

Table 13.1 Direct Study Items and Subcontracted Study Items under the Baseline Survey

	Direct Management Survey				Subcontracted Survey
	Hearing	Field Inspection	Group Discussion	Existing Data - Ledger - Record ,etc.	
a. Financial Status in Health/Medical sector	O	O	-	O	-
b. Medical Facilities	O	O	O	O	O
c. Referral System	O	O	-	O	O
d. Health Information System	O	O	-	O	-
e. Survey on the Situation of Health Service Providers	O	O	-	-	O
f. Human Resources Allocation	O	O	-	O	O
g. Health Services Demand side (Community) Survey					
- Household	O	O	-	-	O
- Sociological and Medical Anthropological survey	O	O	O	-	O
- Survey on the Situation of Beneficiaries	O	O	O	-	O

13.1.1 Selection and Situation of Study Areas

(1) Baseline Survey I

Based on UNICEF selection criteria including regional classification, population distribution, relationship between urban and rural areas, socio-economic indicators, industrial structure, natural conditions including geographic features, environmental status,

etc., specific study areas were selected. Selected five oblasts of Tashkent (including Tashkent City), Bukhara, Samarkand, Navoi, and Republic of Karakalpakstan, which are deemed to be representative of conditions prevailing in those general Oblasts. Furthermore from among the foregoing five oblasts, two Rayons each (total of ten Rayons) was selected as field survey sites through the Workshop participated by C/Ps, directors and/or deputy directors from health department in Oblast, directors from finance department of Oblast and chiefs from health department of Rayon.

(2) Baseline Survey II

The Uzbekistan side requested the expansion of the study area; one oblast of Ferghana Valley was to be included in the study considering its characteristic importance. Through the discussions among Ministry of Health and JICA Study Team, Ferghana Oblast and its two specified Rayons were selected for the expanded study areas. Those study areas were selected according to the criteria of pilot Rayons under the Health I Project, including urban, rural area and the capital; Ferghana City. Moreover, the baseline survey II was conducted as supplement to Baseline Survey I, therefore, selected 5 Oblasts (10 Rayons) under Baseline survey I were also the study areas for Baseline Survey II.

The outline of study areas is shown below.

Table 13.2 Outline of Study Areas

Recipient Oblast (City)	Recipient Ryons	No. of Population	Existing Medical Facility	Remarks
Tashkent City	Hamza Rayon	208,700	Veterans of the World War II Hospital, Blood transfusion Center, Infectious Diseases Hospital, Adults Diagnostic Center, Children Diagnostic Center, Tashkent Agriculture Machines Plant Polyclinic, Aviation Plant Medical Center, Family Polyclinic x 4, Adult Dental Polyclinic, Children Dental Polyclinic, Dermatological Dispensary	One Rayon of modernized capital city of Tashkent. Located in east area and industrial zone of city. Several research centers and 1st Tashkent medical institute are located.
Tashkent Oblast	Zangiota Rayon	155,900	CRH (425 beds), Children Hospital, Children Infectious Diseases Hospital, Polyclinic x 2, SVP x 4,	Located in east direction from Tashkent city. Urban type Rayon. Main industries are cattle breeding and

			SVA x 8, FAP x 17	vegetables farming
Samarkand Oblast	Samarkand Rayon	250,263	CRH, Rural Hospital, Infectious Diseases Hospital Rayon Polyclinic x 2, SVP x 26, SVA x 4	Urban type Rayon and Surrounding Samarkand city Main industries are fruits and vegetables farming which supply to Samarkand city.
	Narpay Rayon	151,145	CRH, Infectious Diseases Hospital Rayon Polyclinic x 2, SVP x 13, SVA x 2, FAP x 39	Bordered on Navoi Oblast, located in north-west part of Samarkand Oblast. Main industry is cotton farming.
Bukhara Oblast	Korakul Rayon	122,000	CRH (355 beds), Central Polyclinic x 2, Children Polyclinic, Dental Polyclinic, SVP x 26, SVA x 5, FAP x 6	Located in east part of Oblast, bordered on Turkmenistan. Main industries are cotton farming and cattle breeding. Oil plants are located.
	Jondor Rayon	125,000	CRH (330 beds), Polyclinic, SVP x 20, SVA x 12, FAP x 16	Suburb type Rayon close-by Bukhara city. Main industries are cotton, fruits and vegetables farming, and cattle breeding.
Navoi Oblast	Kizil Tepa Rayon	109,713	CRH, Tuberculosis Dispensary, Central Polyclinic x 2, SVP x 20, SVA x 4, FAP x 8	Located in south part of Oblast. There is artificial water tank for agricultural irrigation. Main industry is cotton farming
	Konimeh Rayon	41,423	CRH, Rural Hospital x 3, Polyclinic, SVP x 6, FAP x 23	Located west part of Oblast. Main industry is cattle breeding. Density of population is low (2.6 /km^2)
Republic of Karakalpakstan	Beruniy Rayon	146,100	CRH, Rural Hospital, Tuberculosis Dispensary, SVP x 6, SVA x 8, FAP x 38	Located in south part of Republic. River basin of Amu-Darya river Main industries are cotton and vegetables farming
	Tahtakupir Rayon	43,600	CRH, Rural Hospital, SVP x 4, SVA x 5, FAP x 16	Located in east part of Republic. Dry area. Main industry is cattle breeding. Density of population is low.

Ferghana Oblast	Tashlak Rayon	141,346	Central Rayon Hospital (440 beds) Infectious Diseases Hospital (60 beds) Adult Polyclinic Pediatric Polyclinic Density Polyclinic Tuberculosis Dispensary SVP x 16 SES Institute for Health	Located approx. 10 km north from the capital Ferghana city. Main industry is cotton and horticulture farming. Urban/neighboring area of Ferghana city and good accessibility
	Altiarik Rayon	157,888	Central Rayon Hospital (365 beds) Rayon Hospital (90 beds) Hamza Municipal Hospital (130 beds) District Hospital x2 (Total 90 beds) Infectious Diseases Hospital (40 beds) Adult Polyclinic Density Polyclinic Pediatric Polyclinic Tuberculosis Dispensary SVP x 15 SVA x 3	Located approx. 30 km west from Ferghana city, also in the middle of Ferghana and 2nd biggest city of Kokando Main industry is cotton, grapes and vegetable farming

Remarks
CRH : Central Rayon Hospital
SVP : Rural Physician's Post
SVA : Rural Out-patient Post
FAP : Outreach Nurse/Midwifery's Post

13.1.2 Field Survey Methodology

Prior to carrying out the full-fledged baseline survey, a short-term trial baseline survey was carried out together with counterparts within Tashkent City and Tashkent Oblest. The objectives of trial survey are a) to check the questionnaire and modify it as necessary for the full-scale survey b) to transfer the field survey methodology to the C/Ps and subcontracted consultants. The detailed components of this baseline survey are given in supporting report. The main issues of field survey are shown below;

(1) Health Financial Status and Balance Sheet Preparation

Although medical service costs remain in principal gratis, a phase-wise introduction of charged medical examination and health care services has been commenced in light of the need to upgrade health care and medical services, and limits on funding availability from the national budget. In introducing charged health care and medical services, it is necessary to study such factors as the selection of an optimal funding format that conforms

to the prevailing social system, setting appropriate medical fees, and upgrading financial management capabilities from both macro (national economy) and micro (hospital administration) standpoints.

Accordingly, with close reference to economic conditions and trends present in Uzbekistan, it is first necessary to study the current situation of health finances (public and private sector medical services at the national level, regional level, and sub sector-wise) within the country from a macro-economic perspective, and a government finance balance sheet for the health sector to be prepared. At the same time, it is likewise required to study the financial and administrative situation of respective medical facilities from a micro-economic standpoint as a basis for analyzing medical service and administrative costs at the executing agency level

(2) Situation of Medical Facilities

During the period of the former Soviet Union, Uzbekistan supported an excessive and inefficient health system with highly segmentized separation of medical facilities depending on the type of practice provided, a highly segmentized referral system, and excessive numbers of both medical service facilities and staff. Although since independence Uzbekistan has pursued a health reform program focusing on optimization of medical facilities and staff, a limited health budget has constrained equipment procurement and maintenance, as well as the purchase of necessary pharmaceuticals thereby seriously impeding a suitable level of health care and medical service activity.

Accordingly, both "soft" and "hard" aspects including the situation of medical facilities and equipment, health service management and operation, system utilization, and financial status of the medical service program are to be surveyed as a basis for assessing the degree to which medical service facilities are fulfilling their intended role

(3) Situation of the Referral System

Uzbekistan is currently attempting to restructure its heretofore highly segmentized and complex referral system (primary to tertiary medical facilities). At the same time, government policy has been encouraging the growth of private sector as well. Also, medical facilities under the jurisdiction of agencies other than the Ministry of Health (railway hospitals, etc.) continue to maintain their vested rights.
Accordingly, the general condition of the ongoing referral system, the degree of reform

progress, best practice and problem issues affecting the referral system are to be studied. The roles that respective referral facilities should be fulfilling are to be collated, and constraints on the effective function of the referral network as well as items that warrant improvement are to be analyzed.

(4) Situation of the Health Information System

Under the network established during the period of the former Soviet Union, a relatively advanced registration system and statistical survey program was in place. Computers are used for health information and data processing at the Central and Oblast level, but there are only several simple database programs developed from different data entry purposes. Owing to this, data precision is low and information processing time is excessive.

Accordingly, projects are already underway by other donors (WHO, etc.) aimed at upgrading the health information database system individually.

In this light, the present situation of health information management at respective medical facilities and the nature of the application of this data to monitoring activities are to be studied and problem issues identified.

(5) Survey on the Situation of Health Service Providers

At present, the referral system is being restructured and deployment of facilities and personnel is being optimized. In this regard, the way in which medical workers respond to local community needs within the framework of the new referral system, and an awareness of the need to provide medical services in an appropriate and efficient manner become extremely important factors.

Accordingly, the quality of action by medical personnel in providing the intended services is to be surveyed from the standpoints of Knowledge, Attitude and Practice, and points of difference or misunderstandings between medical service suppliers and recipients are to be analyzed and aspects of medical personnel performance that should be upgraded are to be identified.

(6) Situation of Human Resources Allocation

Because medical services were highly segmented under the old socialist bureaucracy, redundancy and inefficiency of task execution can still be seen at present. As a result,

optimization of medical facilities and personnel is being pursued under the health reform program.

However, due to decentralization (to the regional and medical service facility level) of responsibility for medical personnel recruitment and allocation, planned and compulsory assignment of human resources from the central government to local governments is no longer being carried out. Further aggravating the situation is the fact that personnel unhappy with work assignment in rural areas have gravitated to urban centers causing skewed levels of medical personnel numbers and skill among regions. Also, there is a growing need in understaffed regions for human resources in the fields of health finance and hospital administration.

Accordingly, the situation of medical personnel within the study area and required levels of capability are to be surveyed, and problem issues with regard to human resources allocation are to be analyzed.

(7) Health and Medical Services Demand Side (Community) Survey

1) Household Survey

Household survey is to identify the daily living environment, living standard, prevalence rate, mortality rate and action taking when the rural population gets sick. This clarifies local community needs with regard to health services, evaluating accessibility to medical facilities, and forecasting demand for health services. The household survey is carried out in the form of an interview survey based on a questionnaire presented to a total of 6,000 households.

2) Sociological and Medical Anthropological Survey

The impacts of the socialist bureaucracy, community organizations, Islamic culture, gender roles, trust in traditional medicine and practitioners, local community attitudes regarding health and sanitation, attitudes about the definition of being sick and being healthy, and attitudes about marriage and sexual activity are to be surveyed by interview. With regard to health-related issues warranting improvement, findings are to be crosschecked for disparity with the household survey, and if discrepancies exist the reason for these is to be clarified.

3) Survey on the Situation of Beneficiaries

This survey is carried out to identify attitudes among the community with regard to demand for health services, opinions about such service, actions taken with regard to accessing health care when ill, and impressions as a result of actually using such service. It is an exit survey and particularly focuses on eliciting from patients exiting medical facilities the motivation for visiting such a facility, factors impeding action to avail of medical services, any hesitations in accessing such service.

13.2 Result of Baseline Survey

Encouraging 'National Health Reform Programme 1998-2005', Baseline Survey was conducted to clarify the health situations and analyze the demand and supply at all levels of health service system. 5 oblasts (Tashkent, Samarkand, Ferghana, Bukhara, and Navoi) and Republic of Karakalpakstan has been selected as pilot areas. Result of survey details is shown in a separate volume.

13.2.1 Survey Outline of Questionnaires and Outputs

(1) Survey on the Situation of Health Service Providers

To clarify the actual situation of health facilities and to realize the awareness of health workers, 110 medical personnel at all health facility level were interviewed..

1) Working Condition

Most of medical personnel have been appointed to present work and 12% on average (range 0 - 25%) has side business. However, 90% keeps working as medical staff since graduation; job-change seems unpopular among them. Income is mostly in the range of 10,000 – 50,000 sums from chief nurse to director in public hospital, and additional income by side business supports partially. Over 80% are satisfied with current job by the reason of "human relationship" and "expertise".

2) Education and Training

Re-training is well known, and "GP training" and "universal nurse training" is widely recognized in pilot areas. Over 80% of interviewee wants re-training to improve their skill. Trend of "continuous medical education (CME)" is gradually accepted as self-reading or attendance of seminar. Those who do not have interests in training answered as "satisfied

with current situation" or "no opportunity", and this tendency was high in Karakalpakstan and Navoi Oblast.

3) Providing Medical Service

On understanding of medical service, "communication with patient", "provision of high technology", "appropriate treatment" and "cost-effective service" was highly supported rather than "quality of life" or "pain relief". Nearly 95% expects "awareness of medical knowledge in patients" to respond to family care.

4) Health Service Management

Most of interviewees recognized weakness and importance of administrative management.

(2) Medical Facilities Survey

The details of "health service management and administration", "medical facilities and equipment" and "pharmacy and drug logistics" are described in each chapter.

(3) Household Survey

1) Characteristic of Dwelling

In rural area, independent house owner is 80%, in contrast to 80 % living in rented apartment in Tashkent City. Basic utility is supplied over 80% but well and tank water dependant exist 40% on average in rural area. Also flash toilet is diffuse only in Tashkent City, specifically 98%, the rest uses outside pit.

2) Composition of Household

In urban area, average family composition is smaller than in rural, especially in Tashkent city; "2-4 persons" holds 75% of share. In Karakalpakstan, "over 6 persons" accounts for 18% of share. 65% of interviewee graduates from secondary school, 23% is with higher education level.

In Tashkent city, 20% of population can earn over 40,000 sums per month, whereas 55% in Karakalpakstan earns only less than 5,000 sums per month.

3) Livelihood

As mentioned above, residents in capital earn maximum 5 times higher income than rural area. Main recourse is wage, accounting for 65%, pension 13%.

4) General Knowledge and Use of Health Services

Information of health service allocation is widely known. Pharmacy is the most popular and accessible health reach. Primary health care facilities such as policlinic and SVP come next to pharmacy. Rayon hospital is chosen for severe case or chronic disease. In rural area, because ambulance is out of reach in an emergency, SVP/ policlinic are chosen even for urgent cases. Frequency of use of pharmacy is 3.4 times per year on average, and outpatient health facilities are 2 times per year in general. Transportation is mostly on foot, accounting for 60%. The reasons for visiting are, "attendance of doctor", "only accessible" and "reliable".

In family, spouse takes care of sick person and head of household makes decision to choose health facility and pay. When health service users could not be met with benefit, they become disappointed; pharmacy accounts for 27% of their disappointment, outpatient facilities 15%, and maternal hospital 10%. Capital residents answered "very disappointed" for "too expensive fee". However, since there is no alternative choice, 75% in total answered continual use of same health facility.

PHC information is known as "Immunization", "Family Planning", "Child Growth", and "Antenatal and Prenatal care". 93% supports the importance of prevention; however additional health expense is little anticipated, less than 1,000 sums.

(4) Sociological and Anthropological Survey

1) Definition of health

"Eating the 'right' foods", "Enjoying being with my family and friends", "Feeling happy most of the time", "Never suffering from anything more serious than a mild cold, flu or stomach upset" and "Living to a ripe old age" are most popular images of *being healthy*. Also friendship is emphasized; it implies group -oriented mentality.

2) Attention for health

"Lead a well-regulated life", "Talk to doctor frankly about illness", "Consider eating a balanced diet", "Go to see a doctor before symptoms go serious" and "Try to have a regular health check" are most popular attitudes to being healthy. This implies that confidence in doctor is confirmed; cost-effectiveness of prevention is understood.

3) Socialism, religion and tradition

There is no considerable influence of religion and socialism, but social pressure, cultural belief and gender gap have some impacts. The details are described in "Chapter 11, Primary Health Care".

(5) Survey on the Situation of Beneficiaries (Exit Survey)

1) Present Health Problem

Patient mainly visits health facility not for prevention but for treatment, and seeks appropriate care near home. Half of users visit facility on foot and feel accessible in general. For last year's frequency of visit, "once" and "4 to 5 times" totals 90%. Waiting time ranges from 15 minutes to 1 hour including tertiary hospital; however, patients feel they were given satisfactory treatment and have willingness to return when necessary.

2) Attitude to Health Service

The reasons of returning to the same facility are based on satisfaction and confidence, with accessibility also being supported. Complaint about treatment or insufficient availability becomes the main reasons when patient changes or stop going to the same hospital,

3) Attitude for Health Expenditure

Even though treatment is free of charge, prescription has to be paid. About willingness to pay, 50% of patient agrees with the payment less than 10,000 sums per year.

4) PHC topics and activities

PHC topics and activities are well known by radio and medical staff, while they rarely appear on mass media (TV), newspaper, and school campaign.

CHAPTER 14
DONOR AND NGO ACTIVITIES IN HEALTH SECTOR

14. DONOR AND NGO ACTIVITIES IN HEALTH SECTOR

Compared with other Central Asian countries, there are more international health programmes in Uzbekistan. The advantage of the donor funds and technical support helps to reduce the government health expenditure and accelerate the health reform. There is also a disadvantage of loosing ownership and delay in the effort for self-sustainability, and increased burdens for counterpart to extra work. Each donor has his own agenda and plan of implementation. In the light of these factors donor coordination for effective health reform assumes more urgency.

14.1 Multilateral Cooperation

National Health Plan and the Presidential Decree prioritized the primary health care. Comprehensive PHC programme is being implemented through the World Bank funded health project and other multilateral and bilateral cooperation support it. Several independent programmes aim to strengthen the health services at sub-center level. Some of major organizations and their plans are briefly explained below:

- World Health Organization (WHO): typical methods such as DOTS program, AIDS program, IMCI, rational drug use, and safe blood supply programme and reporting country profile to WHO regional office for Europe.
- United Nations Children's Fund (UNICEF): typical methods such as IMCI, Safe motherhood, EPI, IEC promotion, GIS programme and safe water supply. Necessary equipment, training and guidelines are provided.
- United Nations Population Fund (UNFPA): reproductive health programme is their focused activity. Reproductive center as a base activity and health promotion, training and equipment are supplied.
- United Nations Joint programme on AIDS (UNAIDS): elaboration of the national declaration on AIDS and STD, joint UN project is carried out.
- United Nations High Commission for Refugee (UNHCR): on the humanitarian aid, broad intervention on health and poverty
- United Nations Educational, Scientific and Cultural Organization (UNESCO): reproductive health programme, IEC and training programme.
- United Nations Office for Drug Control and Crime Prevention (UNODCCP): preparatory assistance on demand reduction of drugs, such as assessment of drug

abuse in Central Asian countries.

- United Nations Development Programme (UNDP): more socio-economical approach, but related with environmental programme and human resources development in health sector.
- World Bank: loan project 'Project Health I' (1998-2003) major activity is focused at PHC, GP training, SVP equipment supply and SVP management are other components. Also convergence of drinking water project is sustained jointly with ADB, UNICEF. "Health II" Project aims to scale-up to national programs in each of the same three components. It will be launched from 2004 and the project will cover fully 9 regions, suggesting the need for financing closer to $100 million. This size of budget will be supported partially by bilateral donors, particularly DfID and USAID.
- Asian Development Bank (ADB): to expand the World Bank project 'Health I', ADB plans to invest jointly with World Bank for 'Project II'. Especially, ADB concerns improvement of medical assistance quality to children, pregnant women, supplying pediatrics and obstetrics healthcare organizations with medical equipment in rayon level health facilities. Also it is planned to create the Regional Blood Banks (Department for Long-time Storage of Blood and Bone Marrow Cells), to Procure and supply the Blood Service with test-diagnosticums, disposal blood transfusion systems, plastic packages (hemocons, compoplasts, blood transfusion systems) for expansion of blood donation on the Blood Transfusion Stations of the Scientific Institute of Blood Transfusion and Hematology.
- Technical Assistance for CIS (TACIS)/Euro Aid: As EU implementation body, medical equipment supply project is concerned.

14.2 Bilateral Cooperation

According to their own schemes and also on the request from Uzbekistan government, donors are implementing bilateral cooperation. Some of major organizations are following:

- Japan: Japan International Cooperation Agency (JICA): grant aid for equipment supply in emergency care centers, pediatric and obstetric hospitals in several oblasts. Clinical training in Japan for medical workers, nursing management and health care reform implementation.
- USAID: United States Agency for International Development (USAID), Center for

Diseases Control and Prevention (CDC): through its implementation body implements PHC program such as and IMCI, reproductive health, GP training, GIS programme and so on. CDC support infectious diseases control, such as HIV and TB control programme and laboratory training.

- Germany: KfW Bank: TB/DOTS implementation, training course and drug supplementation. Health services programme in second and tertiary level hospitals.
- UK: Department for International Development (DFID): coordination activities for World Bank project 'Health I'.
- Switzerland: safe injection and safe blood project through the national blood laboratory and assistance to the national rehabilitation center for drug addicts

14.3 Non-Governmental Organization (NGO)

There are different types of NGOs working in the health sector. International and Central Asian regional NGOs can act from an independent standpoint like donor country. Domestic NGOs activities are usually under the cooperation of donors providing domestic resources and experience. Some of major organizations are following:

- International Committee of Red Cross (ICRC): rapid nutrition assessment
- International Federation of Red Cross (IFRC): TB prevention, medical and social care for elderly, isolated and disable people, and drug supplement
- Medicine Sans Frontier (MSF): TB control, health education and environmental safety including water and food are the main concerns and they are working in Karakalpakstan and Fergana.
- OXFAM (UK): rapid nutrition assessment
- Save the Children (UK): social service for disabled children and educational programme
- Project Hope: implementation body under USAID working in the Central Asian religion. GP training, TB control and IMCI are its main programmes.

14.4 Review of the Health I Project

14.4.1 Outline of the Health I Project

The Health I Project by World Bank is being implemented in Uzbekistan. This project plays a pivotal role in strengthening rural PHC, which is included as one of the priorities in the national reform program formulated by the Government of Uzbekistan. The outline of this project is described below.

Table 14.1 Outline of the Health I Project

I. Goal :
Strengthening of PHC for the rural population
II. Objectives and Activities :
1. To strengthen health services through construction and reconstruction of Rural Medical Post (SVP) and supply proper medical and diagnostic equipment a. Construction & reconstruction of SVPs b. Provision of Equipment and emergency drugs to SVPs
2. To train doctors and nurses in General Practice a. Training of GPs b. Training of universal nurses
3. To change mechanisms of Primary Health Care management and financing a. Improvement of financing & management methods b. Rehabilitation of health care network c. Creation of management information system (MIS)
III. Pilot Project Areas :
Ferghana, Syrdarya, Navoi,
IV. Implementation Period :
Original implementation period :1998 to 2002 (the period to be changed and extended to 2004)

14.4.2 Objectives of the Evaluation

As a salient part of formulating the M/P, implementation status of national reform program shall be evaluated and analyzed to sort out possible constraints and best practices.

Based on these evaluation and analysis, the M/P will stipulate priority programs of improvement measures for the existing health situations, and provide substantial basis for the next national health reform program.

Health I Project is a paramount program focusing on strengthening rural PHC, and is

expected to be followed by Health II Project. In Health II Project starting in 2004, implementation areas will be expanded to 9 Oblasts (3 in Health I). It is, therefore, important to review and evaluate Health I Project so that Health II will be shaped more effectively, and moreover the M/P will be formulated in a comprehensive way in light of nationwide health improvement.

14.4.3 Basic Evaluation Approach

The aspects to be included for the evaluation are shown below.

a) The evaluation is given in accordance with the evaluation matrix. This matrix consists of i) "time table for activities" showing progress of program by time flow, ii) "evaluation indicators table " showing actual indicators in each year, and iii) "fact findings table " showing study results for each activity and target achievement. Also the evaluation will be based upon the following five evaluation criteria.

Table 14.2 Five Criteria for Evaluation

1) Efficiency	Efficiency of the Project implementation is analyzed with emphasis on the relationships between outputs and inputs in terms of timing, quality and quantity.
2) Effectiveness	Effectiveness is assessed by evaluation to what extent the Project has achieved its purpose and clarifying the relationships between purpose and outputs.
3) Impact	Impact of the Project is assessed by either positive or negative influence caused by the Project, which are not originally expected in the Project plan.
4) Relevance	Relevance of the Project plan is reviewed by the validity of the Project purpose and overall goal in connection with development policy of the Government of Uzbekistan and needs of the beneficiaries and also by the logicality of the plan.
5) Sustainability	Sustainability of the Project is assessed in organizational, financial and technical aspects by extent to which the achievements of the Project are sustained or expanded after the Project is completed.

b) The target and indicator of the evaluation matrix is fixed in accordance with items used in the report of Mid-Term Review of Project "Health" 2001" by World Bank, and information which can be acquired from questionnaire prepared in this Study.

c) The recipient Oblasts to be evaluated are "Navoi Oblast and Ferghana Oblast", which are one of the pilot areas of World Bank and also baseline survey areas of this Study.

d) The evaluation is in accordance with the results of the baseline survey. And along

the process of evaluation, JICA Study Team cooperates and collaborates with World Bank and Ministry of Health in order to exchange the information closely and examine the details of contents. The evaluation should be performed by scientific approach based on the Study results of the baseline survey.

e) The evaluation result is prepared based on the results of direct survey by the JICA Study Team and record of discussions on the working groups (see the Chapter 3.2). Subsequently, the analysis of Health I Project is in accordance with results of baseline survey and supplementary survey from May 2004, discussions with the World Bank and meetings on the working groups.

14.4.4 Evaluation Matrix

Evaluation matrix is shown in Appendix Table 14.1 – 14.3.

14.4.5 Evaluation for the Project achievement

The evaluation for achievement of the Project I is shown in below.

- In general, PHC system in rural area has been improved gradually.
- Health I Project contributes to the improvement of people's health,
- Especially, it has been successful in Ferghana.

14.4.6 Evaluation by Five Criteria

The tentative evaluation for the Health I Project is shown below.

1) Efficiency

- Construction of SVPs, provision of equipment and drugs were implemented at a relatively appropriate timing of the Project. As a result, accessibility to the 1st level facilities has been improved and the quality of medical services is improving.
- The GP training was implemented, and many staff of pilot SVP attended trainings, however only a limited number of trainees has participated in the Project, therefore it is difficult to meet a lot of needs
- Effective use of the budget has been started in Ferghana and well maintained. It

is necessary to fully apply the same to Navoi Oblast in the future.

2) Effectiveness

- The first Referral is integrated into SVP, and accessibility to the 1st level facilities is improved.
- Equipment and drugs are provided appropriately.
- The training is contributed to improvement of medical services.
- The programs such as training and HIS are implemented appropriately.
- Effective use for the budget has been started in Ferghana.
- Fostering the administration personnel for effective use of financing is not always sufficient.

3) Impact

- Accessibility to the 1st level facilities and medical services in SVPs are improved, as a result the number of patient was increased.
- Vaccination is implemented, and it contributes to health improvement of children.
- The number of diseases has been reduced in accordance with increase of SVPs.
- Heath I Project contributes to improvement of people's health.
- The number and quality of medical personnel are approaching appropriate levels, at which SVPs can take appropriate medical care and effective use of budget.

4) Relevance

The goal of "strengthening of the PHC to the rural population" is met with national health reform program and the goal and three objectives are; a) establishment of SVP for strengthening health services, b) training for medical personnel, c) change mechanisms of management and financing. These goal and objectives have been almost achieved.

5) Sustainability

- Oblast decree on the per capita budget system was issued in 2001 and Oblast government budget is allocated to SVPs by priority.
- Drugs are provided appropriately, however there is a gap between Project and Non Project facilities
- The allocation of medical personnel is un-balanced between city and rural areas, especially in the specialized field and O/M.
- O/M system including consumables orders system is insufficient.

14.4.7 Recommendation

As mentioned before, basic principle of this evaluation is to be based on the scientific approach. After the results of baseline survey and supplementary survey became fully available, the evaluation was carried out through the meeting with staff of World Bank, Ministry of Health and working groups. The Health I Project has achieved sufficient results in pilot three Oblasts; the number of SVPs increased, provision of equipment was done, and GPs were trained. This project will proceed to Health II Project in other Oblasts. Hence, recommendations for effective implementation of Health II through this evaluation are shown below;

- To strengthen the preventive medicine by SVP (home visit, IEC, etc.)
- To train not only GPs/nurses but also pharmacist, accountant, operation and maintenance, and health information personnel (to improve drug management, financing management, etc.)
- To establish city type PHC facility
- To consider PHC facility for the remote areas

PART III. MASTER PLAN

CHAPTER 15
FORMULATION OF MASTER PLAN OF MEDICAL SERVICES SYSTEM

PART III MASTER PLAN

15. FORMULATION OF MASTER PLAN OF MEDICAL SERVICES SYSTEM

15.1 Flow of the Situation Analysis and Assessment of the National Health Reform Program

Major best practices, problems and constraints in the present health situations in Uzbekistan are summarized as follows. Those issues are obtained through study on the implementation status of the existing National Program of Health Care Reform, existing situations of supplier and demander of health care and medical services, and status of the medical services administrative system and health financing.

This Master Plan includes the situation analysis of the survey results through the following flow.

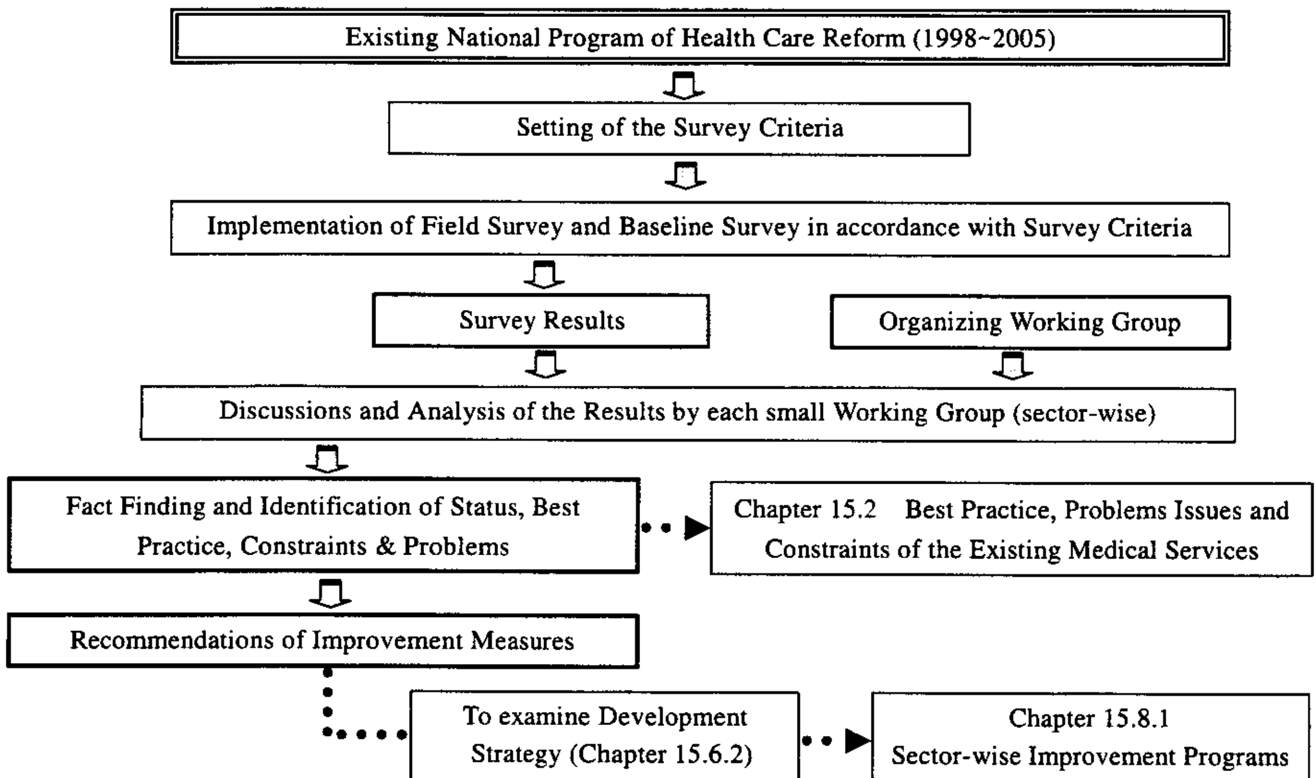

Figure 15.1 Flow of the Situation Analysis

The objectives of this Study are to prepare a Master Plan for nationwide improvement of healthcare and medical services, aiming to present a framework for the effective

implementation of the "National Program of Health Care Reform (1998~2005)". Hence, the Study is to provide a substantial basis for the next national health plan, reflecting the results co-evaluated by both Japan and Uzbekistan side.

Therefore, as a first step of Study activities, the existing national reform program was reviewed jointly by both Japan and Uzbekistan side to acquire the actual situation. The review reflects the results of the direct field survey by the Study Team, and of the sub-contracted baseline survey.

Prior to the field survey, the Study fully examined the contents of existing national reform program, and set the detailed Survey Criteria, based on which the field survey and baseline survey were carried out. These two surveys focused on investigating and identifying the existing situations in accordance with each Survey Criterion.

The Matrix was prepared to examine the exisitng situation based on the survey results and findings (see below Table 15.1), complying with the above-mentioned Survey Criteria. It shows "Area and Objectives" on the existing national reform program, and detailed "Area, Scope and Activities" for "Objectives". The results of the field survey were examined in accordance with each Survey Criterion.

Table 15.1 Matrix for Examination of the Existing Situation and Items

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations

Also, corresponding to these Survey Criteria, the Matrix provides the column for existing "Status, Best Practice, Contraints nad Problems" of health in Uzbekistan.

When filling out this Matrix, each criterion was reviewed and discussed. When the exisiting situation was improved by the implementation of national healthcare reform, it is categorized as "Best Practice" for its contribution. For the oppsite cases, the Matrix sees them to be the inhibiting factors such as problem issus and constraints.

The situation analysis of each Survey Criterion proposes measures such as how to improve

and contribute to the next "National Program of Health Care Reform. These improvement measures are shown in the "Recommendations" column of the Matrix.

Further, for the key concept of this Master Plan Study - it needs to be implemented jointly by Uzbekistan side- the JICA Study Team organized Working Groups. For the vital discussions, 12 small technical working groups were organized by sub sectors of healthcare and medical services.

Each small Working Group analyzed and discussed several times for each field based on the Matrix, using the results of the field survey and baseline survey, and own research results by the group members' activities. Through this procedure, each working group reached recommendations for improving the present situation and solving the problems of each sub sector.

Some parts of the original national reform program are not categorized by sub sectors; therefore, each small Working Group examined the Survey Criteria on the field relating to each group. If recommendation on one sub sector was made by different working groups, they were adjusted and integrated into single recommendation.

Table 15.2 below shows "Objectives" of existing National Program of Health Care Reform, "Scope and Activities", the result of the situation analysis such as present "Status, Best Practices, Constraints and Problems" of the medical services by the discussions of each Working Group, and recommendations for improvement measures. Also, results of the sector-wise situation analysis by each Working Group are stipulated in "Chapter 15.2 Best Practice, Problems Issues and Constraints of the Existing Medical Services". The recommendations of improvement measures in the Matrix (Table 15.2) were examined according to the following development strategy of the Master Plan (Chapter 15.6.2) and set forth as the improvement programs in each sector. The improvement program for each sector is shown in "Chapter 15.8.1 Sector-wise Improvement Programs".

Table 15.2 Assessment of the National Health Reform Program in Uzbekistan (1998-2005)

(Based on the Presidential Decree on the State Program of Health Care System Reform, Nov. 1998 and appendices)

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
1. Provision of guaranteed- level - quality of primary medical care and preventive care system to the population by the State	1.1 Development of potential of health care system		
	1.1.1 Establishment of Institute of Health for the tasks of preventive work, formulation of healthy lifestyle, growth of healthy generation	1.1.1 Insufficient information network, it seems hard to grasp current health status of each oblast to establish a comprehensive health promotion strategy.	1.1.1 Integration of health management system and strengthening the linkage between prophylactic action and treatment can penetrate to population.
	a Coordinating researches and implementation of preventive health care	a Lack of collaboration and communication between policy makers and implementers. Some institutes works optimally, however existing institutes can corroborate more effectively sharing information.	a. Advocacy for high-risk group and intersectoral collaboration between related ministries (e.g., ministry of sports, ministry of education) improve the social life style and quality of life.
	b Active promotion of healthy lifestyles and rational nutrition	b Tradition and gender bias makes barrier between health strategy and communities to change health behavior and health literacy.	b.e. Expansion of practical use of NGOs for community based health advocacy and health gain, or creation of health volunteer to support health promotion activity in SVP
	c Education in hygiene and health care legal issues	c Regulation supports to unify diffused facilities toward the health goal.	c.f.g. Strengthening Primary Health Care facilities to ensure equitable availability and affordability of not only treatment but also health promotion and IEC.
	d Sociological surveys, monitoring, analysis and forecasting of the nation's health condition.	d Many kind of monitoring are enforced by international agencies, donors and NGOs, however those practices are not fully reflected in the health action.	d. The availability of disaggregated data in digital
	e Development of measures to improve preventive care activities, health promotion and rising the harmonious development of generation	e At present the demographic, epidemiological and hospital service statistics are aggregated and in manual format	
	f Promotion of the necessity of physical	f The importance of prophylactic action	

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	development; systematic work on promotion of physical training and healthy life style among population as well as the development of national and traditional sports and games	or concept of public health is still inferior to cure according to limited health budget and risk behavior.	format will enable to share utilization and facilitation of area and disease specific plans.
	g Establishment of the center for physical training labor collectives, educational facilities and place of residence	g Progression of health promotion through physical training is spread, however difficult to measure the health outcomes.	
	1.2 Effective Maternity and Child Care		
	1.2.1 Integration of children and maternity facilities	1.2.1 Many existing MCH related equipment is outdated and insufficient. Loan projects of World Bank and ADB will support procurement of MCH equipment on the community level.	1.2.1 Carefully considered categorization of equipment package for children and maternity facilities each referral level of to use limited health budget must be standardized for implementation.
	1.2.2 Continuous work on ensuring the safe motherhood and improvement of health condition of fertile age women	1.2.2 The priority programme is well qualified for current situation. The programme needs more depth and concrete definition of outcomes.	1.2.2 Set clear goal for comprehensive programme and determine the concrete objectives for activities in each oblast level is necessary for optimal integration.
	1.2.3 Improvement of primary health care services for women, pregnant women and children	1.2.3 Risk factor for reproductive health is well considered and its counter measure is launched, such as anemia and nutrition control. However, basic indicators such as IMR and definition of mortalities are needed reconsideration urgently.	1.2.3 Involving community and family and social responsibility for health are necessary to support the focus group.

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	1.2.4 Establishment of regional centers for "Mother and Child Screening" in order to facilitate the early diagnostics of inborn and other diseases in children and pregnant women, thus preventing the case of inborn disabilities	1.2.4 Still there is a bureaucracy for epidemiological network, however screening center works for perinatal care. The importance for the future is efficient linkage after the detection of high-risk group to referred advanced care.	1.2.4 Gathering correct epidemiological information of target group helps effective diagnose for next step of treatment rather than mass examination.
	1.2.5 Development of special medical genetics centers where women and children will be examined.	1.2.5 The need of genetics centers is recognized, however it is needed to clarify its treatment in conformity and the linkage with other hospitals.	1.2.5 Genetics centers must be a part of Institute of Ob/Gy letting many specialists to consulate severe patients from different aspect.
	1.2.6 Adequate monitoring systems on maternal and child care	1.2.6 Donors follow up those feedbacks by using objective evaluation skills. However, national system itself doesn't reach optimal level to report certain performance indicators on maternal and childcare. At present though there is an exhaustive system of reporting there is lack of performance indicators on maternal and child care	1.2.6 A system of performance indicators need to be developed and monitoring has to be based on indicators. A system of performance indicators needs to be developed and monitoring has to be based on indicators.
	1.3 Organization		
	1.3.1 Finalization of the global shift to two-stage form of primary and other health care services according to the following scheme by 2005	1.3.1 Project "Health I" strengthen this programme: a Rural area reforms: SVP →CRB / Polyclinics → oblasts and republican facilities. b Preservation of stand-alone FAPs and SUBs in desert, cattle farming and mountainous areas	1.3.1 Project "Health II" will succeed expanding the concept to nationwide.

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	1.3.2 Development of Territorial programs for the development of SVPs and mahalla (city) medical posts (GVP) before July 1999 (by the Ministers of Karakalpakstan and oblasts and Tashkent khokimiyat with MOH, MOES and Mahalla fund)	1.3.2 As a trial for better accessibility to health facility in city, as a branch of family policlinics, GVP is set in some area. This issue is proposed in coming World Bank Project 'Health II', however it hasn't been committed and authorized yet.	1.3.2 Limited health budget must be used for priority rural area, so that GVP should be considered as long-term future plan. However, trial can be observed to analyze the cost-effectiveness.
	1.3.3 Create paid, including private, maternity care facilities in cities to work simultaneously with existing government maternity care facilities	1.3.3 Enough demarcation between normal hospital care and charged care can make clarify the scope of the charging and consensus for willingness to pay by patient. However, this criterion has not well discussed yet. Equity may be affected. Payments and paid services responsive to demand. Demand for private facilities determined by factors often related to perceived quality of government facilities.	1.3.3 Definition of maternal care must be reasonable and appreciated by people to shift to charged consultation in maternity care facilities. Determine, through GIS maps, complementation of public-private provision in areas.
2. Strengthening of the system of emergency medical aid	2.1 Organization		
	2.1.1 Creation on system of emergency health care with establishment of Republican Center for Urgent Medical Care in Tashkent and its oblast branches in 1999	2.1.1 In the emergency medical care system, there is no united model/ concept of the service functioning on oblast and rayon level.	2.1.1 It is necessary to set the model of emergency care organization on oblast and rayon level.
	2.1.2 Functions of emergency medical care is addressed for its organization, role, finance and other related issues	2.1.2 Inclusion of emergency care services as the whole volume in guaranteed package might make the financing system unsustainable. There is no clear determination of emergency care among different providers of heath services facilities. Also developed standards of	2.1.2 To define the service package of the emergency care on the basis of uniform principals of emergency and urgent cases can make service effective. To develop the standards of emergency care for different facilities and the medical staff

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
		emergency medical care are not linked with economical aspects.	of different subdivisions in accordance with service package of emergency care.
	2.1.3 Ensure the staffing of Republican Center for Emergency Medical Care and its oblast branches by highly qualified specialists	2.1.3 Republican Center of Emergency Care and its branches have highly-qualified specialists. However, The training of emergency care to doctors and nurses is not established.	2.1.3 To develop the resolution on doctors and medical nurses of emergency care. Approve these specialties in the State Committee of Labor. To create the system of training and retraining of emergency care specialists on the basis of Republican Center of Emergency Care and the Tashkent Institute of Post-graduate Study. To introduce the system of emergency care training in Medical HEIs of undergraduate study.
	2.2 Technical		
	2.2.1 To develop and introduce standard-lengths of stay depending on the disease and their consequent rehabilitation	2.2.1 The duration of the free charge of stay in centers of emergency care is limited to 5-7 days. After the expiration of this stage of treatment, the patients who still need medication are transferred to other hospitals for the completion of the medication course on a charged basis. In regions, all emergency patients stay in same department for 5-7 days. This makes the department full for all emergency patients.	2.2.1 To introduce some flexibility to continue treatment of patients on a charged basis including the department where the patient started the medication. To provide the free treatment of emergency patients in the specialized departments of CRB during 5-7 days, not to keep them in emergency departments for more than 1-3 days.

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	2.2.2 Carry out scientific researches to create new effective technologies of prevention, diagnostics and treatment of emergency conditions and introducing them into practice	2.2.2 The research is conducted and coordinated between the Scientific Council and Republican Center of Emergency Care. However, in fact, all findings are introduced in other facilities.	2.2.2. While developing the new methods and treatment of medication and diagnosis for emergency care, it is necessary to consider related environments such as education, equipment, and training literature preparation.
	2.2.3 Organization of Special Training Courses of pre-clinical care and medical aid in emergency conditions to emergency patients	2.2.3 Republican Center of Emergency Care, Tashkent Institute of Postgraduate Medical Study, and Tashkent ambulance station service have developed the training manual on Emergency Care during the pre-hospitalization for doctors and nurses.	2.2.3 The research can focus on the development of medication and diagnosis standards, and the frame of guaranteed free package services by the government.
	2.2.4 Provision of emergency services in Tashkent, Nukus, Oblasts, cities and Rayons.	2.2.4 Tashkent Republican Center of Emergency Care and Oblast emergency centers were established	2.2.4 It is necessary to adopt the standards of emergency care on pre-hospital stage as services package, which is guaranteed by the state, and also necessary to be introduced it into the academic programs of doctors and nurses qualification improvement courses.
3. Improvement of the system of organization, allocation and quality of the health care network	3.1 Shift primary level care to the General Practitioner System; development of GP system in rural and urban areas	3.1 As in 1.3.2, some trial are raised.	3.1 As described in 1.3.2
	3.2 Except for emergency and primary health care	3.2 Introduction of free service is	3.2 Project "Health II" will

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	facilities, established free medical services will be rendered by state children multi-profile hospitals, maternity complexes, infectious disease hospitals, hospitals or departments of specialized dispensaries (TB, dermatology, oncology, psychiatric) through their outpatient units	appreciated by the community including better accessibility to SVP. Those services are limited in pilot area, and it will be expanded to nationwide.	strengthen the expansion of service area.
	3.3 Rationalization of bed capacities by intensifying hospital care, comprehensive pre-hospital examination and qualified outpatient care during the rehabilitation period	3.3 In recent years, the duration of the bed occupancy of hospitals is decreased significantly according to the reduction of the observation period in pre-hospital and hospital.	3.3 To create the quality control system and management of medical care.
	3.4 Improvement of the quality of health care services		
	3.4.1 Establish a state standard of quality and comprehensive medical services by type of facility and level of services, starting 2000, reflecting the following: • Comprehensive and relevancy of medical tactics according to standard criteria for stages of treatment, groups of diseases and types of services, including limits of tariffs; • Availability of necessary equipment and drugs to deliver the primary, urgent, qualified and specialized medical care • Availability of qualified specialists who can deliver the appropriate services	3.4.1 There is no clear quality control and management system. This system started to develop, in particular, the center for Accreditation and Attestation was established and started to conduct the attestation of the medical personnel. The development of standards on other specialties has been initiated, however the economical aspects were not taken into account. There is a lack of experience and specialists for the development of clinical-statistical groups and clinical standards with economical aspect consideration.	3.4.1. It is necessary to evaluate scientifically, and also refer from abroad standards to develop the economical standards

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	3.5 Improvement of the System of Drug Supplies		
	3.5.1 Determining general demand for drugs, volume of guaranteed (free) drug supplies in state facilities as well as improvement of the mechanism of purchase and financial support	3.5.1 Determination of drug demand is difficult at present because no reliable inventory records exist in health facility. Drug supply to public medical facilities is not sufficient and unequal drug distribution is seen. More than half of in-patients have to buy drugs by themselves instead of drugs for in-patient have to supply by free-of-charge. Some financial support exists by international donors. The average Dori Darmon satisfy drug supply to health facilities is 56.7% based on the survey. Availabilities of key indicator drugs in 2002 are as follows; (% of health facilities always stocked during the year) -Aminophylline injection 44.1% -Salbutamol injection 17.5% -Ampicillin tablet 36.9% -Gentamicin injection 34.4% -Aspirin tablet 56.1% -Proplanolol tablet 19.7% -Nitroglycerin tablet 50.8% -Verapamil tablet 36.7% -ORS 47.5% -Diazepam injection 23.4%	3.5.1 In order to determine general demand for drugs, training for pharmacy workers on systematic drug inventory management should be organized and should use the system nationwide. Essential drug list that is divided by each facility level should establish to make easier drug procurement. In order to improve drug supply in PHC level, 'essential drug kit' system can be introduced.
	3.5.2 Development of the national pharmaceutical industry and ensuring the competitiveness of its products by	3.5.2 Domestic pharmaceutical industry produce only 20% of the amount of essential drugs.	3.5.2 Pharmaceutical industries should give priority on producing drugs from the

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	introduction of international Good Manufacturing Practice (GMP) practices for ultra-clean medical production	Imported drugs are cheaper than the domestic ones. So suppliers tend to import drugs. Some pharmaceutical industry do not meet the GMP standard.	essential drug list. Taking measures to keep the price of domestically produced drugs low.
	3.5.3 Development of the market of pharmaceuticals, creation of the market infrastructure in the system of drug supplies	3.5.3 Drug market is developing. However, drug market control system has not established and irrational drug use is the big issue.	3.5.3 Comprehensive drug management program including private pharmaceutical sector should be established.
	3.5.4 Establishment of the Uniform state control system for quality, registration and certification of pharmaceuticals	3.5.4 Drug and medical equipment quality control department takes the roll and system itself has established. However, since no inspection is done to private sector, control system does not work. At present, people can get any drugs without prescription although the regulation on prescription drugs exists.	3.5.4 Inspection and control system have to be implemented. Regulation on prescription drugs should be revised and approved by the Cabinet of Ministers.
	3.5.5 Improvement of the legislative acts regulating the relevant issues of pharmaceutical industry and drug supplies in accordance with the international standards	3.5.5 Most legislation acts are established. Law related to drugs exists only one at present and it became an old one.	3.5.5. Acts for drug market control is urgently necessary. Drug and pharmaceutical activity law should be revised. National Drug Policy should be approved by higher level such as the Cabinet of Ministers
	3.6 Re-structuring of Sanitary-Epidemiology system before 2000.		
	3.6.1 Development and implementation of the system of sanitary and epidemiology monitoring	3.6.1 Mainly SES is the executive body for sanitary and epidemiological surveillance. However, its examination	3.6.1 According to limited health budget, integration of organizations such as SES,

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
		system and equipment are insufficient and not enough budget allocation. At present the SES monitoring system at republican level is through aggregated statistics which are again compiled by RIAC.	institute of health promotion and republican health institute in public health sector should be considered. Republican SES is in the process of developing independent computerized monitoring system.
	3.6.2 Development and implementation of state sanitation and epidemiology programs to ensure sanitary and epidemiological well-being of cities and settlements	3.6.2 Lack of coordination between health promotion and sanitary infrastructure settlements.	3.6.2 New sanitary settlement is a good opportunity for behavior change on community. There must be a good collaboration for different institute.
	3.6.3 Improvement of the mechanism of competitive distribution of funds to the fundamental and applied scientific medical researches	3.6.3 There is no clear criteria where is the priority according to current situation and epidemiological aspect. Also sub divisional scientific research can be integrated.	3.6.3 Linkage between research and treatment can support integration of realistic improvement in medical and research sector.
	3.7 Attestation and accreditation of laboratories of republican and territorial state sanitation and epidemiological supervision centers	3.7 It is planned to strengthen examination system in project "Health II" through HIV/AIDS and TB control program with coordination of SES.	3.7 Comprehensive approach of health information system can be involved in the future project.
	3.8 Implementation of measures of improvement of the network and infrastructure of health care facilities regardless of their affiliations.	3.8 Improvement of hospital constitution. Integration of medical facilities and examination of facilities arrangement	3.8 Established the pilot hospital and testing.
	3.8.1 Preparation of the program of health care system material and technical base development for 2001-2005	3.8.1 Human resources development for medical engineer and Technological improvement. Training program for operation and maintenance of medical equipment.	3.8.1 Equipment operation and maintenance training by JICA program. Training program by manufacturer.

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	3.9 Improving the organization and level of scientific researchers		
	3.9.1 Refining of the system of scientific and research institutions	3.9.1 Duplication of many functions in Scientific Council of MOH & Center of Science & Technology under KOM.	3.9.1&3.9.2 To develop a concept of science priorities in medicine for 5, 10 & 15 years, delegate all rights from top qualification nurses to Scientific Council of MOH
	3.9.2 Improvement of the mechanism of competitive distribution of funds to the fundamental and applied scientific medical researches	3.9.2 There is no evident national program and direction of medical science with clear financial allocation	
4. Establishment of a market in health services and improvement of healthcare management	4.1 Privatization of existing health care facilities in cases when it does not contradict principle of equal access, as guaranteed by the government Through sale of shares or whole facilities on competitive basis to buyers, including foreign investors for exclusive purpose of operating as health care facilities	4.1 Relatively slow. Pace may be related to availability of bank credits, foreign investment guarantees, and similar incentives.	4.1 After determining number and location of facilities, auction can be explored as means of disposal.
	4.2 Creation of private care facilities to develop simultaneously with existing network of government health care facilities complementary in terms of scope and quality Collectives of medical workers and individuals may be supported in establishment of private health care facilities through rentals or outright sale of government healthcare facilities	4.2 As in 1.3.3, 4.1.Need to ensure equity not sacrificed.	4.2 Incentive mechanisms needed to speed up reforms. Regulatory framework needed for privatized facilities.
	4.3 Development of an order of licensing, accreditation and certification of state and private health care facilities and practitioners	4.3 Urgently needed.	4.3 Examine other country systems and adapt.

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	in the Republic of Uzbekistan 4.4 Regulating the level of tariffs for medical services for the whole country, within which health care facilities regardless of form of property will be free to establish their own tariffs depending on territorial and other conditions	4.4 Tariff setting must be based on unit costing and understanding of demand.	4.4 Commission unit cost studies
5. Improvement of the financial base of the health care system	5.1 Ensure the provision of free health care services for a guaranteed scope of services	5.1 Guaranteed package of services needs re-examination.	5.1 Define benefit packages: basic and comprehensive.
	5.2 Effectiveness of Budget Spending through a Per capita allocation for emergency, immunization and vaccination b Norm-based systems for benefited population groups and covered diseases c Per capita norms for disease prevention, environmental protection and anti-epidemic activities d Financing of medical science and education e Allow savings from health care facilities to be shared by medical personnel and for strengthening material and technical base of state health care system	5.2 Per capita payment for SVPs in Health One projects are acceptable to providers and administrators. Need unified and simplified reporting systems. Norms have no basis in reality. Per capita budgeting must have basis in terms of health need and levels of care.	5.2 Commission formal evaluation studies on per capita budgeting pilots for SVPs to determine impact and quality of services. Need to devise refined formula for resource allocation and budgeting. Explore feasibility of alternative payment schemes (non-facility based but person-base, eg. Vouchers) for subsidies given to patients and benefited groups.
	5.3 Establishment of a system of Chargeable Medical Services, through private and mixed financing (with partial budget financing) for a Treatment in Rayon, city and multi-profile facilities, scientific institutes' clinics and hospitals b Multi-profile children's hospitals c Applied scientific research training d Established volume of free services in oblast	5.3 Transparent collection and disbursement of formal charges.	5.3 Hospital governance reforms. Design exemption rules.

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	centers 5.4 Institute private financing in private practice, NGO facilities and some maternity facilities through a Insurance contracts b Direct payments from patients c Requirement for NGOs to render 20% of services free-of-charge to benefited categories of patients	5.4 Exemption mechanisms not clear.	5.4 Institute insurance mechanisms esp. for catastrophic cases.
	5.5. Creation of a State Medical Insurance Fund under appropriate licensing and government control starting 1999 – 2001 and establishment of mechanisms to ensure safety of funds	5.5.No state medical insurance system in place.	5.5 Under discussion. Develop consensus on type of medical insurance system feasible for the country.
	5.6 Preparation of the program of international cooperation and attraction of foreign investments and funds for development of health care in the Republic	5.6 More active donor coordination especially in priority areas needed.	5.6 Area and focus mapping of foreign assistance and credits.
6. Improvement of the process of training, re-training and advanced training of medical workers	6.1 Opening of special departments at curative faculties of medical institutes for education of top-qualification for nurses, according to 3-year program on basis of medical college education, starting 1999-2000 6.2 Development of proposals regarding the rules of enrolment to medical education and standards of education for top-qualification for nurses by May 1999;	6.1 & 6.2 The third cohort have been graduated this year/ alumni can work as a leader nursing specialist in medical facilities and teacher in medical colleges, as well as a high qualified nurses in Anesthesiology, Surgery, O&G, nurse-manager. But it is not very popular. At the present time the same category can be achieved in work & there is no enough applications	6.1 Revise & re-exam of goals & objectives of secondary specialized education taking in account the labor market needs and develop a new curricula & plans; 6.2 Revise & re-exam of goals & objectives of education for top-qualification nurses taking in account the labor market needs and develop a new curricula & plans, excluding topics from secondary education curriculum.
	6.3 Establish 1/6 ratio between the number of	6.3 This ratio have been achieved, more	6.3 To develop assessment of

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	professors and trainers and students of medical institutes, starting 1999-2000 school year	active strategy, including economic to motivate students and teachers and develop competition among them & institutes needed (experience of TashMI-1)	teachers, institutes by criteria and give more places for students to winners according to the results of competition and increased the payment
	6.4 Introduction of state educational standards based on analysis of public demand and quality of specialization of medical cadre through use of modern pedagogical techniques and information technologies	6.4 State educational standards have been implemented. Issue is 75% of undergraduate curricula is theoretical (lectures and seminars). No social partnership	6.4 Assessment of market needs & development of social partnership. Area of international projects assistance and grants
	6.5 Creation of a two-level specialized education for nurses 6.6 Adoption of a two-tier system in postgraduate education: preparatory (bachelor degree) and magistrate	6.5 & 6.6 The level of top qualification nurses is the second one. CME for nurses exist as formal provided by medical colleges for nurses advanced training, but there are no program for CME of top qualification nurses, family or GP nurses, as informal it is provided by Nurses Council in Ferghana Emergency Centre, Samarkand oblast nurses Council, CAFÉ project, ZdravPlus project. But mostly they are not coordinated There is no magistrate for nurses.	6.5 & 6.6 Development of 3 categories of middle level specialists and re-exam curricula for each category of students survey of existing medical colleges & nursing schools by developed criteria and divide them in two categories: public health nursing schools and medical colleges. Assistance of international projects and credit
	6.7 Strengthening of postgraduate training through a system of internships, doctoral researches, and special professional education programs (especially for GPs)	6.7 Two level of higher education have been implemented. But it is not reflect the market needs. The initial (primary) specialization has been abolished and magistrate can't not cover all needs.	6.7 The concept under discussion. Review of curricula and develop model approach in education, give more time for self-education and practice at the last years on under-graduate & especially on post-graduate level. Assistance of international consultants & projects needed

Objectives/ Area	Areas/ Scope and Activities	Status/Best Practice/ Constraints/Problems	Recommendations
	6.8 Gradual transformation of professional medical schools into colleges due to restructuring of the existing buildings to new ones by 2005 6.9 Ensuring the transition to two-level education of physician-GP with 5-7 years of education 6.10Development of structure of personnel training and re-training (students, young specialists) by referring them to the leading medical institutions of development countries	6.8 Post-graduate education & CME in modern term have not been developed enough yet, especially for GPs. 6.9 No real social partnership 6.10 Most educational facilities and clinical bases are poorly equipped, no standards & criteria of good clinical bases, often medical facilities are not interested in education	6.8 & 6.9 A special survey of labor market assessment is needed. To develop under RIAC & Cadre Department of MOH a special committee to coordinate this activity 6.10 Development of social partnership
7. Establishment of legal base of and organization support for health care reforms	7.1 Draft laws on: Medical Insurance 7.2 Establishment of the Republican Commission for Organization and Control over the Implementation of the State Program of Health Care System Reform in Republic of Uzbekistan.	7.1 Law on private medical insurance passed. Inclusion of emergency care in guaranteed package may make the financing system unsustainable. 7.2 Capacities for health sector reform assessment and implementation not in place.	7.1 Under discussion 7.2 Capacity building activities needed. May need special body for health financing because area is broad and highly technical.

15.2 Best Practice, Problem Issues and Constraints of the existing Medical Services

The results of the sector-wise situation analysis by the each small working group are shown below:

(1) Health Management System and Legislative Base of Health

a) Approaches of the decentralization system, budgetary and administrative responsibilities are transferred to the Oblast governments. Ministry of Health has a close relation with rural governments and is making an effort in health care improvement throughout the country.

b) As a result of decentralization, when reallocating the budget, appointing medical personnel appropriately, and comprehensive view from the nation's standpoint in health administration are sometime lacking.

c) Gradual transition has been in procedure, however a system and an influence of the former Soviet period still remain in some parts and inefficiency is observed.

d) Complying with the policy of the privatization of health sector, private clinics, hospitals and drug stores are established, however, private organizations are out of governmental structure. There are no standard or guideline of medical services for private facilities.

e) In some cases, process requires coordination and consultation by administrative bodies, because there is no coordination in database development among concerned organizations.

f) In some cases, allocation of medical personnel only in accordance with specialty of medical facilities becomes inhibiting factors for the efficient and cost-effective implementation of the medical services.

g) The result of the JICA Baseline Survey shows 95% of hospital managers in health facility are willing to learn and acquire more management skills.

(2) Health Finance

a) In Ferghana, a pilot project is being implemented, and the health budget is effectively spent.

b) 173 private medical facilities were established, and 1,781 licenses for privatization have been issued since 1998.

c) The model of paid medical service (mixed finance) has been introduced in 425 public medical facilities, however there are lack of information on scope and

practice of partial or full charging in public facilities.

d) Private insurance is already in place and operation, whereas implementation of compulsory insurance has been delayed due to the slow legislation

e) There is no best management or coordination for the health finance reform within Ministry of Health.

f) Provision of standard for international disease classification and drug inventory in each medical facility are not prepared. It is important to adopt medical insurance.

g) According to the observation, effective and rational use of medical finances is rarely attained, due to the complicated structure of referral system, inefficient layout of buildings and organization of medical facilities. Also, there is not enough capability in administration personnel at medical facilities.

h) The JICA Baseline Survey reveals that patients are referred to emergency hospital from Rayon hospital (average 35times/year) or Oblast hospital (average 27times/year), implying that the role of the emergency center is not clearly defined.

(3) Referral System

1) General Referral

a) Ministry of Health has been arranging to simplify the referral system, from the segmented former Soviet system to simple categories comprising three levels throughout the nation.

b) Ministry of Health and Health Project have established the first referral facility of SVP (rural physician's point) according to the number of population in the covering area.

c) The medical facilities are redundant in number and sometimes too large in scale. They do not always meet the demand of the patient and actual health situations.

d) There are, to some extend, lack of consistency in concept of primary level care. Activity of the facility at the Rayon level is observed to be practically a primary level activity.

e) Apart from the referral system of general medical facility, there is another referral mechanism for specialized medical care services (infectious diseases, maternal and pediatric and so on).

f) Currently the flow of patients among different levels of medical facilities works almost reasonable, but only approximately 10% of the patients are estimated to

visit upper level facility.

2) Emergency Medical Care

a) Emergency medical care system is relatively well prepared and arranged. Republican Research Center of Emergency Medicine in Tashkent performs the central activity as the top referral facility.

b) Emergency medical care may create a distortion if not fully integrated into the health system. A lack of sufficient communication is observed among different emergency centers, departments and other relevant organizations such as SES.

c) People in general do not have adequate knowledge on emergency system.

d) There is no adequate health education concerning first aid, and standard of medical care at the pre-hospitalization stage is not in place.

e) Some standards of medical services for the pre-hospital stage and emergency medical care facilities at all levels do exist, although they are not sufficiently adopted in the existing situations.

f) In emergency and other areas of medicine, the unified methodology approach is not attained; for development, adoption and constant improvement of the treatment guidelines/standards.

3) Specialized Medical Care

a) There are many categories and a number of specialized medical cares in Uzbekistan. It is estimated that about 40 specialized medical care facilities including scientific institutes exist. And specialty of doctor is classified into 76 categories in the statistics.

b) The activity of specialized facility is expected not only to perform highly skilled medical services but also to give education and training for medical professionals, and to carry out necessary and urgent research and investigation in each specialty. But, it is not fully functioning as expected.

c) There seems to be too many specialized facility in existence; function and linkage with other medical facilities are rarely seen.

d) There are problems in the field of specialist training; while internship and clinical ordinatura (residency) models have been liquidated, the adequate master degree programs are not yet working at satisfactory level.

e) There are shortage of specialties in some areas and human resources particularly at the Oblast level.

4) Blood Transfusion System

a) Blood demand and supply cannot be fully grasped in the existing system.
b) The total volume of blood collection is not so large in each BC and too small in each BTU.
c) Capability of immunohematological and infectious diseases' testing for blood collected is not always sufficient with the existing equipment.
d) Securing blood safety by interviews to blood donors and testing is indispensable from the viewpoint of preventing blood-transmitted diseases, especially HIV infection.

(4) Quality of Medical Services

a) Equal access to health and medical services has been introduced.
b) A standard for treatment and medical services at the SVP level has been prepared, but not at the Rayon and Oblast level medical facilities.
c) Groups of medical specialists are appointed to give advice and consultation to the rural medical facilities.
d) Standard of international disease classification is not adopted; development of clinical practice guidelines and treatment protocols has not yet been in place.
e) It is important to improve the quality of medical services. Quality of medical service is basically defined by smooth and mutual relation between medical service providers and patients, although the meaning of "quality" is not clearly defined.
f) There is no provision of appropriate equipment, pharmaceuticals and other resources.
g) Training on the medical personnel to improve of their skills and knowledge is not undertaken properly.
h) According to the JICA Baseline Survey, medical workers have awareness of continuous study and training (average 93.8%) to improve their service qualities.

(5) Medical Facilities and Equipment

a) Owing to the influence of the former Soviet period, floor Plan for Oblast and Rayon hospital building are in "complex style", and its scale and the number of buildings do not meet the actual situation of needs.
b) The existing equipment was procured in the former Soviet Union period and they are 10~15 years old. The number and function of equipment are not always

sufficient to provide adequate medical services.

c) Tibitechnika provides maintenance and repair of the equipment at governmental medical facilities. Tibitechnika has a good skill for former Soviet style equipment, but does not have suitable skills or technologies for advanced western equipment.

d) Emergency medical care system is in place. It contributes to the improvement of health services; however, the number of ambulance car and its equipment do not meet the needs of existing situation.

e) The management of operation and maintenance for equipment in medical facilities are weak: no engineer specialized in equipment, logbook record, stock of consumables and spare parts.

f) Ministry of Health prepared a provision standard of equipment for each referral facility; however, equipment grade and quantity are not enough to meet the situation of each referral level of facilities, the number of patients, and components of medical services.

g) The sanitary condition of medical facilities such as lavatory is poorly maintained.

h) The JICA Baseline Survey shows that medical workers complain about old or lack of equipment (average 40.3%), requesting for new and better equipment.

(6) Human Resources Development

a) Admission of students to medical institutes, nursing schools and colleges is carried out without analysis of labor market needs for specialists, and there is no evidence-based approach to assess the rate of physicians and nurses in different facilities and in general for healthcare, including sanitary epidemiological surveillance and public health.

b) The re-orientation of the education system towards production of GPs only will cause the excessive increase in the number of specialists without further specialization. But, in the present healthcare structure, there is no opportunity to find jobs for all of them.

c) The same circumstances cause deficiency of the specialists; hence one of the major problems is the shortage of employment opportunity for the alumni.

d) At the present time, the real bachelor institute in healthcare is not available, hence there is no an opportunity or a system for their employment, and the alumni have not received the diploma of bachelor.

e) Doctors' undergraduate education in the seven-year duration with present structure and curricula is inappropriately long; the 4-5 years of basic medical education to

prepare the bachelor should be sufficient. Employment system for them should be developed because the present system is not capable of taking care of them.

f) Duration of middle level personnel training is not sufficient, because during the first half of their education the students actually finish their secondary education and only during the remaining 1.5 years they are trained particularly for special skills.

g) There is not enough time to train the students and residents (masters) to attain practical skills.

h) Not enough attention is being paid to develop human communication skill and attitude

i) The concept of nurses with higher education (HE) degree and their position in the present healthcare system have not been clear yet.

j) The important issue is the absence of the specialties such as "GP" and "Leading nurse" (nurse with higher education) in the specialists' list of the Ministry of Labor, as well as lack of the approved tariff system for these specialists.

k) Another issue demanding attention is the quality of education especially in the regional institutions and colleges.

l) The absence of magistracy for high educated nurses

m) The absence of the structure to provide the science and research work in primary care, medical education and nursing

n) There is no detailed concept developed on educating finance managers.

o) Cost for undergraduate and post-graduate education is very high, and the tuition fee is the same regardless of different criteria, for example, quality of education, number of employed alumni, etc.

p) There are also some contradictions among different laws and subordinate legislations on education. Some regulations were changed in the course of the on-going reforms implementation.

   - The weak logistical base of medical institutes and their clinics
   - The lack of informational and methodological support of education process
   - The lack of social collaboration in the medical education with partners
   - The insufficient motivation of students, teachers and medical personnel
   - Quality of education, including the knowledge and skills assessment system is not satisfied
   - Continued professional development, accreditation and licensing system for specialists, as well as for teachers have not been established well.

- Not effective system of assessment and self-assessment of educational institutions.

(7) Drug Supply Logistics

a) Laws have not been revised since they were established.

b) No law enforcement system is in place.

c) National Drug Policy has no approval by the Cabinet of Ministers yet.

d) Essential drug list for SVP level has not yet been prepared.

e) Standard treatment guideline at SVP level exists, nevertheless, needs to be improved.

f) No law on generic substitutions has come into effect.

g) Drug reference book was prepared, Pharmacopoeia is under preparation.

h) Drug registration system exists and 3,500 pharmaceuticals are registered at present.

i) Re-training program for *Pharmacist* is not systematically conducted.

j) Lack of communication and information sharing on drug inventory between health facilities and Dori Darmon is observed.

k) Domestic drug manufacturing share accounts only for 25% of essential drug market.

l) Drug shortage at primary and secondary health facilities is pervasive.

m) Accessibility to drugs is narrow in rural areas.

n) Unsystematic inventory management is prevailing in health facilities.

o) Irrational drug use can be seen.

(8) Health Information System

a) Under the network established during the period of the former Soviet Union, a relatively advanced registration system and statistical survey program was in place.

b) Central and Oblast level (some of them) have been using the computers for health information and data processing. However, there is no computerized system in most Rayon hospitals and SVPs.

c) There are several health information databases system developed by international organization, donors and RIAC. However, there is no uniform style or coordination between those databases (among concerned organizations).

d) The HIS system is mostly manual and aggregated data, except for the most

dangerous infectious diseases (this information is transmitted by phone daily). The rest of the information is transmitted mostly through quarterly and yearly reports.

e) There are several routes/flow to collect and transfer the information and dates (complicated system of data collection and reporting)

f) There is sufficiently organized **population registration system** (ZAGS) but the health system linkages with it in terms of tallying the household data are weak.

g) Although exhaustive data is generated and transmitted to the levels above, feedback is mostly oral in the medical meetings and data feedback is absent.

h) Performance indicators for monitoring health systems are not in place.

i) There are several issues with the data quality; especially the outpatient and house visit data at the primary health facilities. Although the data auditing system is in place, its functioning is hindered by financial and other constraints.

j) There are insufficient training and guidance for improvement of rational and systematic management of reporting, statistics and information system.

(9) Primary Health Care and Health Promotion

a) Number of SVP visits and home visits are increasing in the World Bank project areas.

b) GP and universal nurse system starts to lead elasticity of medical education system where provides rigid health services.

c) GP and universal nurse training period is short to cover comprehensively and insufficient to follow up educational network.

d) Understanding the importance of GP and PHC among lecturers and medical students in medical institutes and local autonomy are lacking. Also little is shared by communities about the new system.

e) Low awareness of empowerment of universal nurse and social status of nurse.

f) Insufficient number of lecturer corresponds with new curriculum.

g) Negligible financial support for PHC activities to keep international standard in local autonomy.

h) The transition of referral system reform is leading to a confusion of health services provision, such as emergency center and SVPs.

i) Limited finance for equipment, essential drug and drug logistics for primary health facilities.

j) Neither the Institute nor its subdivisions has adequate equipment, sufficient funding to utilize modern approaches. Scope of their work is unreasonably

comprehensive and often their roles and responsibilities are duplicated by other Ministry of Health's agencies. The focus on their main goal, i.e. healthy lifestyles promotion, is lacking.

k) Despite the fact that health promotion is determined as one of the strategic and highly prioritized work of Ministry of Health, it is still unclear which institutions are directly responsible for performing relevant tasks. Primary preventive activities are carried out though by the GPs, Institute of Health doctors, SES personnel and – in some cases – even specialized doctors. There are no efficient mechanisms of funding, in particular.

(10) Maternal and Child Health Care

a) MMR and IMR in last decade has decreased alongside social development; however, the use of the Soviet definition of live birth may be responsible for some of the gap between the official and survey-based estimates of IMR.

b) Presidential Decree supports sustainability of MCH programs throughout the country.

c) Home visits enhance detailed care for prenatal and antenatal care.

d) Polio free certificate has been achieved and immunization coverage keeps over 97%.

e) No clear demarcation between emergency center and pediatric/ obstetric hospital.

f) Limited medical equipment for appropriate diagnosis, essential drug in PHC level facilities outside the scope of the World Bank project area.

g) Blood transfusion system does not meet with urgent hemorrhagia and risk management.

h) Though immunization rate is high, there is a difficulty of self-production of vaccine and future sustainability of the program.

i) Domestic violence or child abuse is not recognized as serious issues.

j) Traditional attitudes and behavior of parents and family suppress the health promotion, especially in MCH field.

k) Involvement of communities is limited, and they cling to the old system in local medical workers.

(11) Sanitation, Hygiene, and Infectious Diseases Control

a) A strong system of state sanitary-epidemiological control has been well tested for many years of its operation and proved to be an efficient and reliable mechanism.

b) However, its financing mechanisms and technical capacity are not sufficient. Replacement of 15 to 20 year old laboratory equipment and provision of reagents should be addressed as one of the most crucially important issues.

c) Shortage of sanitary specialists and epidemiologists is already observed, especially at the Rayon level. This particular problem might aggravate further, because the student admission rates at Tashkent Medical Institute No.2 (TashMI 2), the sole teaching facility for sanitarian and hygiene specialty, have decreased partly due to insufficient numbers of state education grants.

d) There are several complicated referral systems of specialized facilities for the sanitation and hygiene of environment, daily life, labor condition and prevention of infectious diseases (e.g. Scientific Research Institute of Sanitation, Republic Center of Sanitation and Epidemiology Control: SES).

e) There are some cases that each referral and organizations mentioned before, conduct researches and activities in parallel and individual. Therefore, the cooperation and collaboration with other referral and organizations are not always appropriately taken place.

15.3 Population Projection

For the purpose of the Study, the total population of the Uzbekistan in the target year of 2010 was estimated initially based upon the previous annual growth rate of 2.0% from 1990 to 1997. But, as a result of changes in life style after independence, annual population growth rate became low. Estimated population growth in 1998 was a low 1.4% (WHO Euro Office statistics, 1999). As the population of Uzbekistan has shown steady increase and the annual growth rate keeps a relatively low figure at present, a figure of 1.4% is applied to their population projection. This calculates that the population in Uzbekistan will be 28,120,000 in 2010.

On the other hand, population prospect by UNFPA (United Nations Population Fund) presents three projection scenarios: low variant, medium variant and high variant. UNFPA's projection by UNFPA is shown below;

Table 15.3 Population Projection by UNFPA

	Low Variant				Medium Variant				High Variant			
	Total	Male	Female	Growth Rate %	Total	Male	Female	Growth Rate %	Total	Male	Female	Growth Rate %
2000	24,913	12,373	12,539		24,913	12,373	12,539		24,913	12,373	12,539	
2005	26,593	13,222	13,371	} 1.31	26,868	13,362	13,506	} 1.51	27,143	13,503	13,640	} 1.72
2010	28,031	13,948	14,083	} 1.05	28,837	14,359	14,478	} 1.42	29,644	14,771	14,873	} 1.76

Source: World Population Prospects, The 2002 Revision, UNFPA

After giving a review on two projections, annual growth rate and UNFPA's, the Study chose to apply UNFPA's low variant scenario. Thus, total population of Uzbekistan will be 28.0 million in 2010 (a round figure).

15.4 Macro-economic Expectation

A moderate economic growth prognosis is expected during the Plan period from 2004-2010. The past years saw the growth in gross domestic product (GDP) of Uzbekistan hovering around 4.0% as against an official target of 5.0%. A more optimistic expectation for the Plan period would range between 4.5 to 7.0 % growth. This moderate economic prognosis is anchored on steady foreign investment flows, which depend on both economic conditions and the political milieu.

The government relies on agricultural performance and natural resource exports to move the economy forward. These pillars of growth have traditionally been vulnerable to external shocks. However, while external conditions may affect growth performance, the country's integration with the world economy hinges on the macroeconomic policies formulated and the pace of implementation of market reforms. External debt position, exchange rate and trade policies are critical to economic stability and sustained growth.

Further, since the economy is under transition from the Soviet system, the steps taken to hasten the transition are likely to be critical to the prognosis for the Plan period. Inflation remains a serious threat. Asian Development Bank's *Economic Outlook 2003* indicated that the official Consumer Price Index (CPI) measure showed an average annual rate of 27.6% for the previous two years, against an official target of 18%. Rise in fuel prices, recent increases in public sector wages and pensions, are likely to put further pressure on prices.

Trade controls, foreign exchange restrictions fuel inflation. Managing inflation, therefore, poses a serious challenge during the Plan period.

The health sector is a visible and essential part of the extensive and generous entitlements system. Whether it will continue to be adequately supported will depend on the rationality and efficiency of the country's tax administration system. A proliferation of tax breaks has resulted in a decline in revenues and would need careful review if the material base for the Master Plan is to be realized. It is proposed that this Master Plan will maximize current resources and opportunities to modernize the system and generate needed investments to the sector. A WHO global report* has affirmed that investments in health contribute to economic growth through reduction in disease burden, increased productivity and enhanced household savings due to reduced healthcare expenses. Poverty afflicts over a quarter of the population in Uzbekistan, with a third being categorized as extremely poor (WB, 2003)**. Rising costs of healthcare are contributing to reduced savings and household impoverishment.

The proposed Master Plan in the health sector is envisioned to contribute to over-all macroeconomic performance by getting the incentives right, through appropriate systems and structures that will promote equitable and efficient delivery structures, and developing management systems that can track performance and ensure accountability.

Expectation of macro-economic figures is estimated according to assumptions of the above-mentioned growth rate and inflation rate. The GDP per capita by current prices in 2002 is 294,458 sums (US$ 347, 1 US$ = 980 sums). The expectation of per capita in 2005 is approximately 421,500 sums (US$ 430) and approximately 1,411,000 sums (US$ 1,440) in 2010. Also, estimation of health expenditure expectation per nominal GDP in 2010 assumed 2.0 to 2.5% is 790.2 to 987.7 billion sums (806.3 to 1,007.9 million US$). The per capita of health expenditure shows 28,200 to 35,200 sums (28.8 to 35.9 US$). Health expenditure is usually estimated by GNP base that shows actual economic status. However, there is few official data for GNP in Uzbekistan and amount of trade is not very big. Therefore, figure of macro-economic expectation is applied GDP base. Consequently, total health expenditure in 2010 might be 987.7 billion sums for this M/P.

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* World Health Organization, Commission on Macroeconomics and Health, 2002,.

** World Bank, *Uzbekistan: Living Standards Assessment: Policies to Improve Living Standards*, May 2003.

15.5 Goals for Health Improvement for Target Years

Demographic and health indicators for evaluation of healthcare reform and medical services improvement is to be set based on the target year of 2005 (short-term), 2010 (mid and long-term). In addition, the final target year of the next "National Program of Health Care Reform" is to be considered as the target year of super goal in M/P.

The Government of Soviet Union in Moscow settled target health indicators during the former period. However, after dependence those functions and instructions were failed. The Ministry of Health has started to organize the preparation committee of health target indicators by itself. On the other hand, Uzbekistan's applied health indicator is former Soviet Union standard. Therefore, figures are different from international standard. The Ministry of Health decided to introduce the international standard (ICD 10) from 2006 in Ferghana Oblast, and it will be expanded to countrywide from 2008. Hence, this M/P is formulated based on health indicators with international standard. The monitoring indicators of M/P is set through the analysis of latest trend of health indicators, prospective figures of UNPFA, Millennium Development Goals by the United Nations, and other data as necessary.

The monitoring indicators for target year are shown below;

Table 15.4 Monitoring Indicator for Target Year

	2001	2005	2010
Population (Unit: 1,000 Person)	25,000	26,600	28,000
Crude Death Rate (per 1,000 Population)	5.3	5.2	5.1
TFR: Total Fertility Rate (Children per Woman)	2.40	2.19	1.76
IMR: Infant Mortality Rate (per 1,000 Birth)	51.0	46.1	40.1
MMR: Maternal Mortality Rate (per 100,000 Birth)	34.1	31.7	28.6
U5MR: Under 5 Mortality Rate (per 1,000 Birth)	67.0	60.6	52.7
Life Expectancy at Birth	69.3*	69.7	70.9

Source: Statistic Data by RIAC, 2003
Human Development Report 2001, UNDP
The State of World's Children 2001, UNICEF
World Population Prospects, the 2002 Revision, UNFPA
Remarks: *) Figure is 2000

15.6 Basic Principles of Development Strategies for Achieving Goals

15.6.1 Basic Principles for Master Plan Formulation

1) The plan should be formulated to improve health care and medical services nationwide, and framework should be planned to effectively implement health care and medical services. It aims to provide the substantial basis for the next national health program.

2) Effective and equal access to the health services should be achieved under the constitution, existing national health reform program, decentralization and privatization policy.

3) Effective and rational allocation and distribution of the limited medical finance, budget, human resources, facilities and equipment will be the indispensable issues for formulating the improvement programs.

4) The area of Uzbekistan is vast. Therefore, characteristic of climate, environment, and structure of population, race and disease status vary depending upon each Oblast. The effective and sustainable health improvement programs should be formulated considering the characteristics of each area and zone.

5) The coordination and collaboration network system will be developed to establish the realization and sustainable implementation of the improvement programs among the Ministry of Health, related ministry such as Cabinet of Ministers, international organization and NGOs.

6) There are many cases that the plans are formulated only in the light of medical supply side. As a consequence, health reform programs such as improvement of medical facilities and medical service will be favorable only for the medical providers, which should not be deemed as the improvement of actual medical services. The plan should be formulated in accordance with the needs of the demand side so that medical services improve substantially.

15.6.2 Objectives and Strategies of the Master Plan

The objectives and strategies of this M/P are formulated complying with the basic principles of Constitutions; "secure the health for all population", and basic concepts of existing National Program of Health Care Reform. Moreover, these objectives and strategies is set based on the best practices, problem issues and constraints of the existing medical services, countermeasures and priority issues for improvement, which were obtained through analysis of field survey results.

(1) Overall Goal

Overall goal of M/P is to improve national health situations for all population in Uzbekistan through removing the inhibiting factors in existing medical services system.

(2) Objectives, Strategies and Activities

Table 15.5 Objectives, Strategies and Activities for the Master Plan

Objective A "Improvement of the quality of medical services and enhancement of equal access to medical services for all population "		
Strategy A1 "Improvement and establishment of the qualified Primary Health Care and Maternal and Child Health Care services"	**Activities**	
	A1.1	Establishment and improvement of the function and facility of SVP, SVA, and GVP, which are, first access point for the out-patients
	A1.2	Establishment of the equity of the medical services level among urban- rural, and public- private medical facilities, through the strengthening of supervising and managing capability of government.
	A1.3	Improvement of the technology, skill and capability of the medical provider (physicians, nurses, co-medical staffs and so on)
	A1.4	Strengthening of health promotion and IEC activities to inhabitants, and sanitary and epidemiological control in communities
	A1.5	For the MCH services, to improve the CRH capabilities which is first access point of in-patients in rural level
	A1.6	Strengthening of visiting family doctors, nurses and midwifes system
Strategy A2 "Improvement of the quality for clinical services and administrative capability of medical facilities"	**Activities**	
	A2.1	Improvement of facilities and equipment for the availability of high quality of medical services
	A2.2	Strengthening of management capability for administration, financing, and medical record
	A2.3	Development of guidelines for clinical services and preventive medicine
	A2.4	Development of standard for executive essential drug and equipment for effective qualified medical services, and strengthening of drug management, and operation and maintenance system
	A2.5	Development of the standard for human resources allocation for every level of medical facilities

Strategy	Activities
	A2.6 Training and fostering of the physician, nurses, lab technician, pharmacist, co-medical, staffs managing staff, financing staff, operation and maintenance staff, other categories of staff as necessary
	A2.7 Strengthening of laboratory tests and diagnostic examination capabilities
	A2.8 Development of the adequate and safe blood transfusion system
Strategy A3 "Improvement of the medical technology and research activities"	**Activities**
	A3.1 Improvement of the State level specialized medical institutes for the researches activities and specialized doctors fostering functions
	A3.2 Strengthening of capability of RIAC, SES and Institution for Health for medical statistics analysis, researches and methodology development
	A3.3 Improvement of capability of personnel for medical technology and research, equipment, facilities and function of laboratories
	A3.4 Establishment of guidelines for medical technology and research development, and organization of scientific medical committee in the Ministry of Health
	A3.5 Strengthening of the collaborations among universities, institutes, official and private organizations, NGOs and international organizations for the improvement of the medical technology and research activities
Objective B "Establishment of effective system of medical services for the population's health"	
Strategy B1 "Defining of the medical facilities referral and improvement of patients' referral system"	**Activities**
	B1.1 Simplifying and arrangement of medical facility referral (referral stage and facilities' number) and stage of patient referral for effective medical services
	B1.2 Optimization of the medical facilities and system such as disease based specialized medical facilities, in-patient and out-patient medical facilities, and separated system for general-specialized -emergency
	B1.3 Strengthening of SVP as first access point, and establishment of the patient referral to higher-level facilities, and improvement of patient transportation system
	B1.4 Strengthening of the function of RCH for the improvement of medical services at Rayon level, strengthening of the function of RCH
	B1.5 Improvement and strengthening of the Oblast General Hospitals, for establishing medical services system at Oblast level
	B1.6 Improvement of the functions such as medical services, researches and fostering specialized doctors, in top referral specialized institutes at State level.
	B1.7 Optimization of emergency (medical facilities) and ambulance (call center) system for more effective emergency services
Strategy B2 "Improvement and rationalization of Rayon and Oblast level medical services"	**Activities**
	B2.1 Integration and consolidation of medical facilities with same specialties and out-patient and in-patient medical facilities
	B2.2 Transition of the specialized medicine from disease bases to organ bases
	B2.3 Establishment of the integrated general hospital of CRH and Oblast General Hospital, consisting of specialized medical services departments, general out-patient department, in-patients departments, emergency department, and medical services supporting departments

	B2.4	Development of integrated laboratory test system at Oblast level (establishment of central laboratory), for the function of diagnostic examination to be centralized and established into the foregoing consolidation of CRH and Oblast General Hospital
Strategy B3 "Improvement of medical facilities, equipment, drug supply and in-hospital functions"	**Activities**	
	B3.1	Improvement of hospital function and movement line for patients and hospital staffs
	B3.2	Improvement of sanitary conditions of hospitals and provision of standard equipment for more effective and qualified medical services
	B3.3	Strengthening of operation and maintenance system for the facility and equipment, and establishment of guidelines and manuals
	B3.4	Strengthening of drug management system (demand and supply, inventory), and establishment of executive essential drugs list, drug management guidelines and standards
	B3.5	Training and fostering of the physicians, nurses, co-medical staffs, pharmacists and operation and maintenance staffs in order to strengthen in-hospital functions
	B3.6	Improvement of drug logistics and equipment maintenance system at both state and Oblast level
Strategy B4 "Establishment of health management information system"	**Activities**	
	B4.1	Simplifying the information flow of health, medical, sanitary and epidemiology, demography information and data
	B4.2	Improvement of the laboratory test and diagnostic examination capabilities for the quality control of data sources
	B4.3	Development of integrated health information system database and software, and provision of the equipment for digital data processing to the Rayon level
	B4.4	Training and fostering of the qualified health information system personnel and establishment of training system for the personnel in rural areas
Objective C " "Improvement of the effective use of the health financing and introduction of new financing mechanism"		
Strategy C1 "Improvement of effective use health budget"	**Activities**	
	C1.1	Minimization of medical expenditure through rationalization and centralization of medical facilities, referral system and laboratory test system
	C1.2	Strengthening of management system for medical record and drug prescription record for avoiding duplicate and unnecessary medical treatment and cost
	C1.3	Appropriate spending of medical financing on standardization of equipment and executive essential drugs, and improvement of management capability for inventory, log and maintenance books
	C1.4	Development of effective budget allocation system based on the health information system
	C1.5	Minimization of medical cost in the medical facilities by providing more adequate and qualified medical services to the patients so that period of treatment and hospitalization will be shortened.
Strategy C2 "Strengthening of the financing management capability for	**Activities**	
	C2.1	Strengthening of health financing management system and monitoring capability in the governmental organizations

governmental administration and medical facilities"	C2.2 Establishment of effective spending of expenditures at each medical facility to strengthen their financing and managing capability C2.3 Establishment of system for monitoring and reporting of financing status and medical records at related organizations (state government, rural governments and medical facilities) C2.4 Training and fostering of the financing and managing personnel at related organizations (state government, rural governments, medical facilities and insurance associations)
Strategy C3 "Improvement of the preventive medicine and encouragement of medical treatment at earlier stage, to minimize medical treatment cost"	**Activities** C3.1 Strengthening of health promotion and IEC activities to inhabitants to minimize medical treatment cost C3.2 Improvement of sanitary and epidemiological conditions in communities to reduce infectious diseases C3.3 Promotion of vaccination, EPI and DOTS program as preventive medicine C3.4 Improvement on the quality of GP, family doctor and emergency medical services system, and provision of medical information to the community inhabitants through strengthening the functions of SVPs and CRHs
Strategy C4 "Introduction of the new health financing system (universal coverage of health insurance) and establishment of Legislative Bases for it"	**Activities** C4.1 Development of legislative bases and standards for the introduction of universal coverage of health insurance system C4.2 Establishment of the organization and system for the premiums collection, insurance request, and insurance disbursement C4.3 Training and fostering of the insurance managing personnel at related organizations (state government, rural government and medical facilities, insurance associations, makhallas) C4.4 Establishment of system for monitoring and reporting of financing status and medical records at related organizations for introduction of insurance C4.5 For the introduction of universal coverage of insurance, improvement of the quality and equity of medical facilities C4.6 Development of standard tariffs of medical services and services packages for paid or free charged medical services C4.7 Promotion of knowledge and information for universal coverage insurance system to the inhabitants

15.7 Basic Planning Approach for the Formulation of Master Plan

15.7.1 Stage-wise Development Approach

The proposed national health care system and reform programs will be implemented by taking stage-wise approach. On a short-term basis, major focus will be placed on strengthening and upgrading of existing reform programs, and establishment of new reform program models and know-how for the future, which are being implemented by the Ministry of Health, international organizations and donors. On a medium and long-term basis, the new institutional and systematic reform, organization and infrastructure will be considered.

15.7.2 Effective Allocation of Resources in the Master Plan

The health care sector consists of small sub sectors such as health financing, drug supply logistics and equipment, PHC, human resource development. Therefore, for the formulation of the Master Plan, the programs will be considered from both sector-wise (vertical) and comprehensive (horizontal) aspects. Moreover, the situations of each Oblast and area have different characteristics of disease status; therefore, health care improvement programs need to be considered from area-wise aspect. For the formulation of improvement programs, the stage-wise evaluation on current reform program shall also be included to delineate directions.

Effective use of limited resources is important when planning the Master Plan. These resources consist of three components such as human resources, health financing and materials (facilities, equipment, drugs, etc.). Therefore, in this M/P, first, these resources will be allocated efficiently and rationally in accordance with the needs of the demand side, and then the improvement programs were formulated accordingly. As such, the allocation of resources was also considered from vertical, horizontal (comprehensive and sector-wise aspects) and area-wise aspect. Workflow in formulation of effective resource allocation programs is shown below.

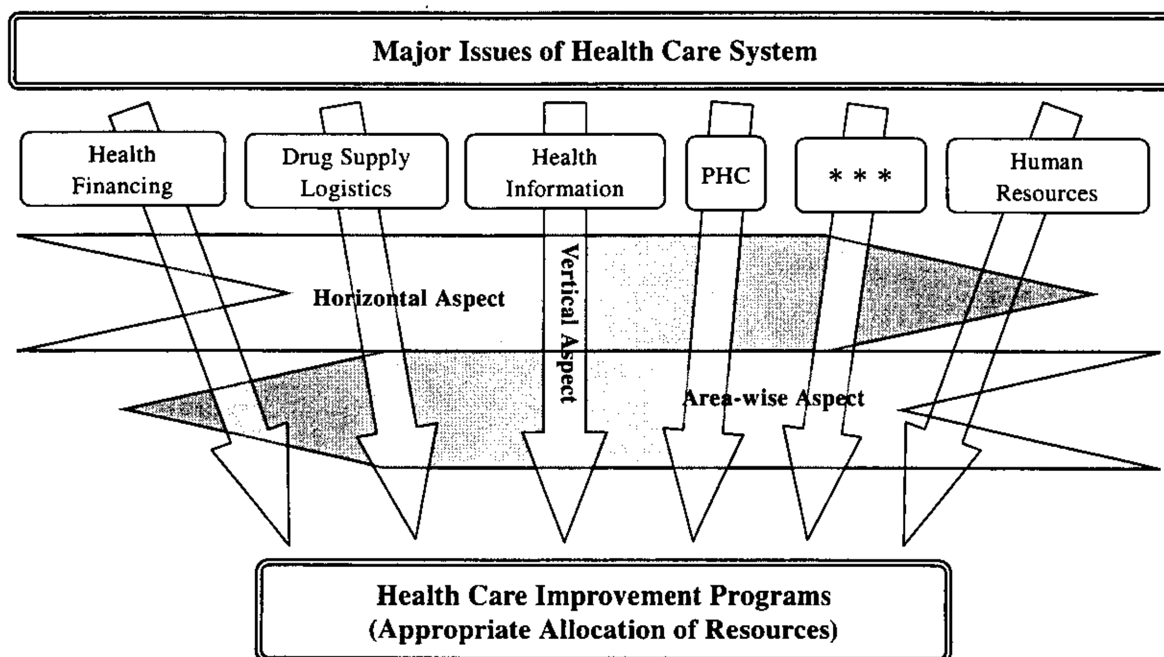

Figure 15.2 Work flow for Formulation of Effective Resource Allocation Programs

15.8 Improvement Programs under the Master Plan

15.8.1 Sector-wise Improvement Programs

In this Master Plan, health care system will be delineated as a substantial base for the national health plan. First, with both sector-wise and area-wise approach, then with comprehensive approach, integrated programs will be designed. This procedure was taken place throughout working group sessions. Programs from sector-wise aspect are as follows: (Details are precisely described in the Supporting Report). The sector-wise improvement programs were obtained from the results of the situation analysis (see Chapter 15.1 (1) to (11)) and examination by each working group session in accordance with development strategies (Chapter 15.5.2).

(1) Health Financing

To secure the health of the present and future generation of Uzbekistan's citizens, a health financing system must be devised – one that can cope with the rising demands on the health system, and, as needed, drive the reform process to yield effective, efficient and equitable outcomes. This section describes the basic strategy of the Master Plan for Health Financing.

1) Improvement of the Financial Base of the System

In 2001, 9.6 percent of the government budget was devoted to the health sector. Since then, there has been a slight decline in the health sector's share to 9.2 percent. This does not augur well as the first phase of reforms identified, as the 1998 Edict has not been fully implemented. The government's commitment to provide a guaranteed package of services is under threat as the resources needed to do so are not available, nor does the capability exist to implement the package in an efficient and equitable manner within the designated period.

To improve the financial base, a four-pronged approach is necessary: a) review of the guaranteed or "free" system of care, including the promotion of broader community participation; b) reform of the budget allocation process, beginning with recent per capita financing and exploration of alternative schemes for secondary and higher-level facilities; c) facility-level reforms to improve budget absorption and

responsiveness through efficient care delivery; and, d) coordination and maximization of foreign assistance.

2) Introduction of Market Mechanisms in the Health Sector

The transition to the market system, following independence, has been deliberate and slow. User charges have been introduced in public facilities authorized to receive mixed financing. Out-of-pocket payments have been reported to be common, including informal payments (World Bank, 2003). More than 200 licenses have been issued for private practice and although application has been slow, such facilities are increasing visibly in cities. Without adequate safeguards, confusion among patients and providers abounds. The poor are likely to be hurt the most. Lack of adequate controls will lead to sub-standard services, greatly harming the public.

To introduce market mechanisms in the health sector with limited consequences will require: 1) facilitating the introduction of a pricing system in public health care facilities through adequate exemption mechanisms, monitoring systems and information campaigns; and 2) ensuring that private sector development activities take place under a sound and broadly drawn regulatory framework; that release from government control for some facilities is made on a rational basis; and that disposal of some redundant government care facilities is hastened through adoption of innovative contract arrangements.

3) Development of risk pooling and purchasing arrangements through compulsory health insurance

Health systems worldwide are coping with rising health care costs through reforms in the way services are funded and provided. National systems (for example, UK) are moving towards splitting funding and care delivery functions. Mixed systems (for example, Germany, Japan) are moving towards greater cost control through performance- monitoring initiatives. The idea behind these reforms is to introduce strong efficiency incentives and accountability into the health system. A health insurance system is commonly viewed as a third party to the patient–provider nexus (see Figure 15.3). It plays a passive role as a financial mediator, transferring funds from patients to providers. A more active role for the insurance system will be to

'purchase' care on behalf of patients through various modes of paying providers to obtain efficient provider behavior.

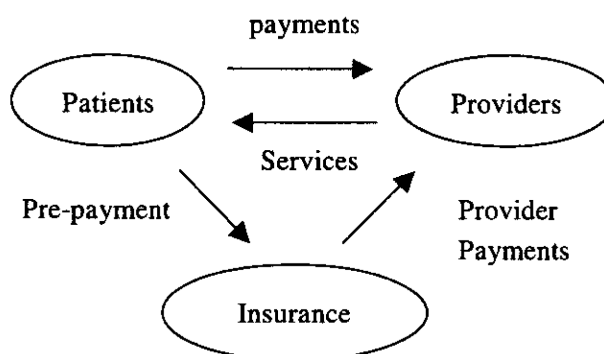

Figure 15.3 The Insurance, Patient, Provider Link

The region has limited experience with this system and implementation issues abound. The main insurance function is to pool financial risks from illness through the pooling of funds. This function has been ignored in the budget-dominated public health system in Uzbekistan. It is included in this master plan for two reasons: a) it is identified as a specific and critical part of the 1998 Health Reform Edict; and b) it presents a tangible alternative to undertake reforms to promote efficient behavior. Formation of systems and procedures can be jointly made with the Ministry of Health to ensure close collaborative work in these new areas of public management in the health sector in Uzbekistan.

During the plan period, the basic strategy is to do the groundwork for the development of a compulsory health insurance system, specifically one which promotes active purchasing through systems of standard setting and quality assurance, utilization assessments, alternative ways of 'care' purchase, and other efficiency enhancing mechanisms. The objective is to put a legal mandate in place following feasibility and system studies.

4) Strengthening Capacities to Monitor and Sustain the Reform Process

The health reform process identified in the 1998 Edict is a massive undertaking requiring capacities and institutions which are not in place at present. The health financing component of the reform process requires a sustained and steady 'orchestration', as well as, new understanding and consensus to achieve the goal.

Capacity strengthening is both a means and an end. Activities identified here are meant to provide the required institutional support, through information and management reforms and dedicated manpower.

The main strategy is to develop core competencies to generate, analyze and monitor data for rational decision-making through the national health accounting system, to conduct training and exposure trips to different health systems, as well as establish a core 'cadre' of trained health economists.

(2) Referral System

1) At the present situation in Uzbekistan, patients can choose any hospital to receive treatment. However, the hospitals at the third level are divided into various specialties in different Oblast, thus patients are burdened with commuting to these hospital. To improve patients' accessibility to hospitals, it is desirable that tertiary level hospitals with different specialties in Oblast are disposed at the same location. Also, defining and simplifying the existing referral system and function are needed so that it will also improve efficiency in hospital organization.

2) Comprehensive rural medical services system at Oblast level will be designed with having the CRH and Oblast General Hospital take leading roles, and capability of CRH and Oblast General Hospital facilities will be extended. Specialized hospital care should also be centralized. All Rayon-level hospitals, except for infectious diseases, should be consolidated into CRH or Central City Hospital.

3) At Rayon level, SVP, as first access point for out-patients, will be strengthened in their functions, whereby medical services at PHC level will be reinforced. Likewise, comprehensive mechanism for CRH, as first access point for inpatients, will be established, encompassing the system of medical treatments, preventive medicine, drug management and financial management.

4) At Oblast level, efficient medical services system will be established with the Oblast General Hospital playing a central role. This requires consolidation and centralization of general out-patient treatment, in-patient treatment, laboratory tests and diagnostic examinations, specialized medical services and emergency medical services.

5) At Republican level, several leading specialized centers will be established with head facilities on certain spheres. These centers will develop new methods and standards of treatment and diagnostics, supervise, and render organizational and methodical assistance to Oblast and Rayon facilities.

6) For the implementation of effective and qualified medical services, improvement will be made for the conditions of facilities, equipment and drugs stocks in the medical facilities. In addition, system and capability of laboratory tests and diagnostic examination, drug management, and operation and maintenance of facility and equipment will be strengthened.

7) The appropriate blood transfusion system, which is to be based on non-familial, voluntary blood donations and a centralized blood testing facility in one or a few Oblasts, will be in place as a solution to improve (alleviate) the unbalance in demand and supply of blood at Oblast levels, and will secure the safety of blood supplied.

8) A central laboratory testing system will be introduced; the Oblast General Hospital will be the core of the centralized system, whereby capability of laboratory and sample transportation system will be strengthened. Consequently, quality control of the test results and accuracy of data will be improved, and the cost for testing will be reduced.

9) A centralized system for diagnostic/functional examinations in Oblast levels also should be introduced at the same time of consolidation of many specialized hospitals into one well functional hospital.

(3) Health Management Information System

1) To address some of the weaknesses of the existing HMIS system and to increase the ability of the health administrators to plan, monitor and take corrective action in the management of health care services in Uzbekistan a comprehensive HMIS project is proposed with the following components to be implemented over a five-year time frame.

- Simplification of registers and reports at the SVP level
- Development of feedback system and its integration to MEDSTAT software

- Developing performance indicator system and its integration to MEDSTAT software
- Training of the HMIS personnel, Management staff and computer programmers
- Equipping the Oblasts and Rayons with computers and communication system
- Refinement and Installation of MEDSTAT software in Oblasts and Rayons.
- Establishing interdepartmental coordination mechanism with ZAGS and SES.
- Review of the HMIS

Some of the above activities are independent and some of them are linked with others and need sequencing. Simplification of registers and reports is a very tricky issue and may need more support from the top management, however the other activities can be carried on and when it is possible, the simplification of registers can be attempted.

2) The proposed project will leverage on the existing infrastructure (equipment, personnel, software and reporting mechanism) and build incremental/additional components so that adoption, utilization and absorption will be smooth. RIAC has developed comprehensive health statistical software, which can provide for current reporting forms. However the software needs refinements in terms of RDBMS connections and additional modules on performance indicators and feedback system.

3) RIAC in Tashkent is the main implementation agency and Oblast and Rayon statistical bureaus are the regional implementers at their respective levels.

4) Technical cooperation through short-term consultants, equipment, training and simplification of the reporting are the project inputs and disaggregated, qualitative and timely data availability or some of the verifiable indicators.

5) With the introduction of computers, Uzbekistan health statistical system will undergo severe changes like changed work patterns (no need for manual aggregating and report preparation) and manually couriering the reports etc. This calls for skills upgrade of the statistical staff to check the quality, do analysis (graphical, mapping). A comprehensive training program needs to be designed to address these issues.

6) It is proposed to increase the donors and inter – ministerial collaboration through

sharable computerized databases, which are updated with inputs from all the stakeholders involved.

(4) Medical Facilities, Medical Equipment

1) Appropriate resources should be prepared for each level of medical facilities to provide equal, adequate and effective health care services. Operation and management also needs to be strengthened. To meet actual situation of needs, the scale and number of buildings require some changes.

2) Consolidation of hospital facilities and internal functions

The building floor plan should be more functional in CRH and Oblast General Hospital. At present, hospital building is divided into a) the outpatient examination and the treatment sections, operating rooms, ICU and the function diagnosis section, and b) in-patient section under the same roofing.

3) Examination policy of equipment list

The Master Plan for hospital facility and equipment list was considered through examining the hospital equipment list from the Ministry of Health, current condition and the results of the questionnaires. The recommended facility and equipment were planned in accordance with the functions of Oblast General Hospital and CRH. Recommended standard equipment lists for Oblast General Hospital and CRH by this M/P is shown in Appendix Table15.1 and 15.2.

4) Ambulance

One unit of ambulance is to be provided for each hospital, because most of the ambulances in the hospital now are not equipped with medical equipment.

It is recommended that these vehicles carry resuscitators, defibrillators and so forth to give emergency treatment on board. As a next step to the Master Plan, radio communication system needs to be installed in the ambulance, especially in rural areas where telephones are not always available.

5) Operation and maintenance

Tibitechnika provides management of operation and maintenance for equipment in the contracted hospitals. For managing the spare parts and consumables, and maintaining the medical equipment, it is important to annually budget the necessary

expenditure. Engineers at Tibitechnica are not skilled in maintaining several kinds of advanced western equipment. As it is necessary for maintaining medical equipment in hospitals, a regular training program by foreign manufacturers needs to take place on government budget so that skill of engineers will be improved.

6) Measures for unstable power supply

The power supply is steady throughout the year in the whole country of Uzbekistan. Although unstable power supply is seen at some hospitals, this can be solved by applying AVR or UPS without causing any problems in medical equipment.

7) Measures on hard water

Hard water is in various regions of Uzbekistan. It is recommended that water for the medical equipment be refined with the soft water machine or the distillation unit.

8) Cleaning and maintenance in hospital lavatory

As part of hygiene management, lavatories in hospitals needs to be kept sanitized at all times.

(5) Drug Supply

1) Existing essential drug list covers a lot of drugs without giving consideration to diseases structure and drug effect; it is creating confusion in PHC level facilities. Therefore, establishment of essential drug list for PHC level is necessary. Recommended essential drug list for PHC level by this M/P is shown in Appendix Table15.3.

2) Ministry of Health made an effort to establish the legislative base of drugs. In present situation, Ministry has to formulate a system for implementing the legislation. In addition, National drug policy should be revised with careful consideration on the essential drug, ingredient name and commercial name of the drug.

3) Drug supply will be improved by two means, a) Dori Darmon and each medical facility must communicate and exchange the information frequently, and b) government will encourage and support domestic manufactures for stable and low cost drug supply.

4) The stock of the drug at first and second referral level facilities is insufficient. Also, accessibility to the private drug store is quite different between Tashkent city and remote area such as Karakalpakstan. Therefore, accessibility to the drug in remote areas should be improved.

- Essential drugs are always available at primary health care level.
- A system of drug supply based on community's participation and initiative will be recommended; Mahalla drug stores and/or revolving fund for purchasing drugs.
- Inventory management will be implemented in pharmacy department of medical facility for stocks management and sufficient use of budget.
- Train the staff how to review the stock movement.
- Develop the inventory management system.
- Establish communication system on drug inventory with Oblast Dori Darmon

5) Fostering and training of the pharmacist and doctors for adequate use and treatment, and education/promotion to the inhabitants to inform the appropriate knowledge of the drug use.

- Review the current way of treatment.
- Establish the standard treatment guideline.
- Correct knowledge on drug use are firmly established among population
- Conduct survey on preference and belief on drugs in the project area
- Establish the Education program through Mahalla

(6) Human Resources Development

1) Human Resources Planning

The human resources planning is tightly connected with the definition of the whole healthcare system's objectives and tasks.

- Reforms of State human resources policy and planning are undertaken with the support and interest of international organizations and projects, which allow to involve investments from international organizations and donor organizations for training managers, for managing staff ; also in Republic and abroad as well.
- The creation of basic package of medical services for the population

- The development of the standards of medical services provision for major diseases by specially created groups of local specialists with the assistance of international project consultants
- The development of qualification requirements to different development of the need in specialists' norms.
- To foster and train the universal nurse, laboratory technician, pharmacist, financing management, medical equipment engineer.

2) The System of Management and the Structure of Medical Education

The necessity of radical changes and novelties in the structure and process of medical education at all levels has been given. Such reforms are needed in order to:

- Train the specialists more effectively to meet the demand and expectations of society;
- Enable the doctors to solve the problems, connected with explosion-like growth of scientific knowledge and technologies;
- Form the doctors' ability to life-long study;
- Ensure the doctors' training in the field of new information technologies;
- Correct the medical education to reflect the changing conditions of healthcare system functioning.
- Centralized system of education management and possibility to control the quality of medical education, irrespective of region.
- Sole educational state standards

3) Legislative Base of State Human Resources Policy and Medical Education

- The creation of the norms-legislative base for the transition to the 3-stage system of healthcare staff training
- To conduct the revision of the existing specialties classification and to recommend the introduction of the new specialties, such as GP doctor and the nurse with higher education
- The creation of the lawful base for carrying-out the state examination for the acquisition of the license
- To approve the order of staff's qualification upgrading with the consideration of

new technologies introduction and distant education development, and also the tutor-guide system introduction

- By the provision of legislative bases, priority distribution of medical resources will be arranged for the remote areas.

(7) Primary Health Care

1) Framework

Interaction between health service suppliers based on PHC facilities (SVP, policlinic) and health service users existing in community induces sustainable chain reaction of appropriate health services. Limited health budget have to be used cost-effectively with largest outcomes. Purchase and sale of unsubstantial health service have to meet with satisfaction for both supplier and users. Thus, clear role and reliable limited services are able to gain the confidence of users.

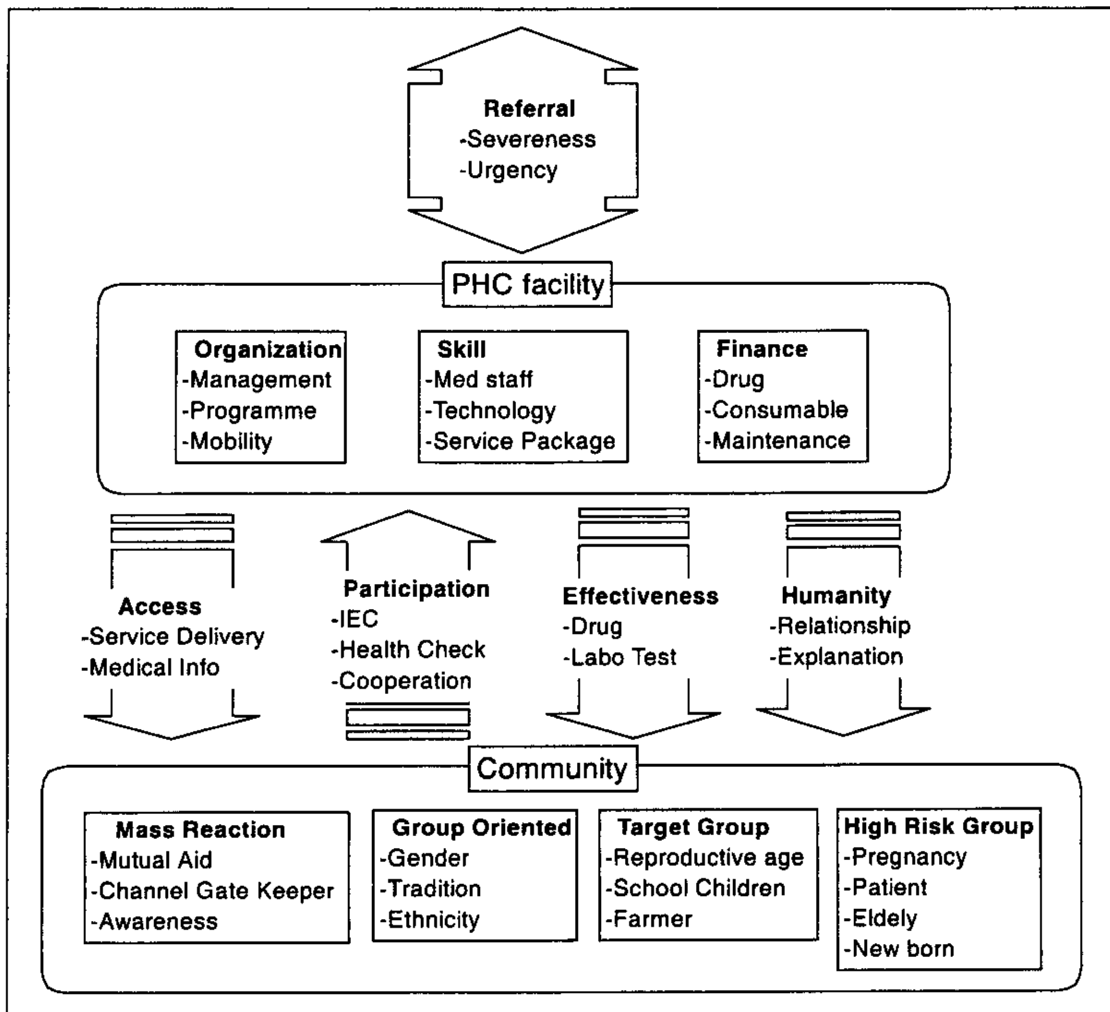

Figure 15.4 Framework of Improved Health Outcome for PHC

2) Lesson learned

Table 15.6 Lesson learned for PHC Issues

Problems	Interventions	Best practices
	Primary Health Care	
-	-	GP and universal nurse introduction in project "health I"
Short period of GP trainer training	GP training need modification on term to 10 months	-
Status of GP is not clear and needs of understanding of GP importance	Filling gap of status between specialist and GP and assurance of GP title	-
-	-	Equipped and essentially supplied PHC facility (SVP)
-	-	Health promotion for community based on SVP by SVP staff
-	-	Introduction of epidemiological surveillance function cooperating with SES on SVP laboratory
Gap between old facilities and new SVP on the quality of health service	Expansion of project "health I" on "health II" for equity of access	-
Difficulty of referral to upper level from SVP	Rehabilitation and reform of Rayon hospital in the future plan	-
Poverty's low income status to have sufficient food	Micro-nutrient supply and community promotion for balanced diet	-
Culture belief and social pressure	Strengthening health promotion	-
	Maternal and Child Health	
-	-	Establishment of screening center for reproductive health
-	-	IEC activities for school children
-	-	Strengthening of reproductive programme
-	-	Strengthening of IMCI strategy in coordination with other programme
-	-	High coverage of EPI
Definition gap of uncountable neonatal death in IMR	Introduction of international standard definition	-
-	-	Establishment of screening center for reproductive health
Difficulty of referral to upper level from SVP	Rehabilitation and reform of Rayon hospital in the future plan by ADB MCH project	-
Blood transfusion system is weak in maternity hospital	Introduction of blood transfusion system in ADB project	-
Culture belief and social pressure	Strengthening health promotion	-

Problems	Interventions	Best practices
Poor quality and not cost-effective contraception and abortion	Re-consideration of supply and logistics of contraception	-
Malnutrition for pregnancy and infant	Drug supply for high risk group and data collection of micronutrient deficiency	-
High anemia prevalence in last decade against programme	Strengthening comprehensive community health promotion of nutrition and pregnancy	-
Sanitation and Hygiene		
-	-	Strengthening of HIV/AIDS surveillance system
-	-	Capacity building of community of environmental health
Bureaucracy of epidemiological surveillance system	Introduction of SVP use for health information system	-
Regional gap of safe water supply and sanitary system	Strengthening of safe water supply with intervention of infrastructure	-
Diarrhea prevalence is still remained high	Diarrhea control with safe water promotion	-

3) Recommendation

For primary health care, GP and universal nurse are newly assigned and these trainings have just completed without experience. Management skill is still weak and it is a long way to be accepted by the community. Thus, sustainability of management requires consolidating the foundation of essential health service constantly. This includes drug logistics, home visit, fixed position of medical staff and qualitative service package.

Joint programme by World Bank and ADB following after the project "health I" can consider strengthening this equity and efficiency on the prior service package. Uniform service package will help expansion of SVPs universally and stably.

For maternal and child health care, high risk groups for pregnancies should be observed by screening. To reduce MMR and IMR, screening put emphasis on middle gestation. As part of its continuing efforts to improve maternal and neonatal health, "mother-baby package" can be recommended. This package descries each intervention needed to achieve "safe motherhood" in the short term. Communities need to be strengthened and families supported to provide the necessary care to improve child survival, growth and development. Families need knowledge, skills, motivation and support.

In general, the accessibility is covered somehow in Uzbekistan. The problem is the quality of water and quantity in some specific area. The issues concerned are groundwater resource in community, in Aral Sea region, and sustainability of stable safe water supply. As far as the quality control in groundwater is concerned, the principal risks to human health associated with community water supplies are microbial. The parameters recommended for the minimum monitoring of community supplies are those that best establish the hygienic state of the water and the risk of waterborne infection.

Community participation for sampling and quick measurement can be cost-effective in terms of transportation. It is also important for other parameters where laboratory support is lacking or where transportation problems would render conventional sampling and analysis difficult or impossible. Hence SVP laboratory can be useful for immediate examination. There should be more involvement with SVP facility and staff for water inspection.

(8) Community Participation

1) By using the present Mahalla system, the interaction between community and medical institution can be enhanced. Likewise, national health reform programs can be disseminated through Mahallas.

2) It needs to involve the respective leaders in the reform process; community leaders should be given greater roles and recognition.

3) The responsibilities and roles of Mahallas, needs to be more standardized so that the gap between the actives and non actives can be diminished. This may require the closer supervision on the financial status of Mahallas.

4) A viable role may be given to the Mahalla, as an institution to collect public health insurance, because similar tasks have been already performed.

5) Consolidation needs to undertake to streamline some of the overlapped tasks between Hokimiyat and the Mahalla Fund. This will enable improvement programs to be more smoothly implemented and disseminated among Mahallas.

6) Above all these, first, full-fledged and in-depth survey at national level should take

place to assess the linkage between Mahallas and medical facilities, and to obtain a complete view on how and what kind of programs and initiatives have been or have not been undertaken in each Mahalla. This shall clarify the best practices and constraints of the status quo, and thus identify the feasible roles to be added to Mahalla in the future.

15.8.2 Area-wise and Comprehensive Improvement Programs

The land area of Uzbekistan is vast; it is approximately 1.2 times that of Japan. It shows various characteristics depending on the areas; however, the results of the Baseline survey show no considerable difference in diseases structure by areas. Therefore, this M/P takes into consideration the difference in infrastructure, population density and the situations of the medical services when area-wise strategies and programs are formulated. Specifically, these differences in characteristics are categorized into three models: i) areas, to which a standard medical services model can be applied, ii) city areas such as Tashkent city, and iii) low population density areas such as Karakalpakstan and Navoi (main issue is how to implement medical services for remote areas).

For the area-wise health care and medical services improvement, area-wise program in this Maser Plan is designed with consideration to all sectors related with health care and medical services. Therefore, it presents comprehansive and integrated programs for the improvement of health care and medical services situations in the whole area.

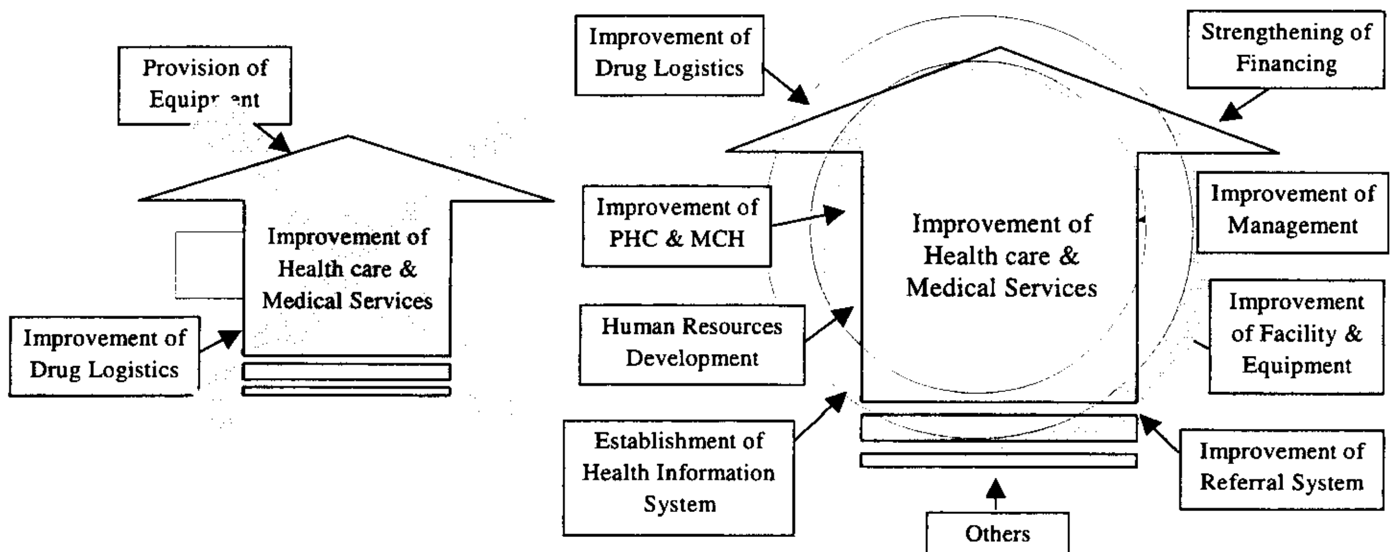

Figure 15.5 Comprehansive Program Appropriate for Area-wise Improvement