(4) Current Situation of MCH

1) Mortality Rate

In Uzbekistan, indicators of Maternal and Child Health care (MCH), such as maternal mortality rate (MMR) and infant mortality rate (IMR) and total fertility rate (TFR) have gradually decreased in last decade in the official report.

Infant mortality rate is estimated using the live birth and stillbirth criteria and most countries adopts WHO definition. However, Uzbekistan is still in transition to shift from the Soviet definition. According to the Soviet definition, IMR would be 20 to 25% higher if WHO definition were introduced.

Maternal mortality rate has gradually reduced, however it keeps mostly flat in the last decade and stays around at 30 per 100,000 live births. Main causes of deaths are hemorrhages, toxemia of later pregnancy, septic complication and extragenitial (non gynecological) diseases. Also caesarian operation can cause maternal mortality linking Hemorrhagic shock or low implantation of placenta.

2) Child Health Care

In Uzbekistan, about 12,000 children die before reaching 5 years old. 61% of them die at 1 year of age. Acute respiratory infection (ARI) and Pneumonia occur 50% of U5MR in 2002 and diarrhea was 2% of IMR. 80% of these morbidities were accompanied with wrong nutrition. Also 50% of postnatal death cases were preventable. IMCI is an integrated strategy, which takes into account the variety of factors that put children under 5 years of age at serious risk. It ensures the combined treatment of the major childhood illnesses, emphasizing prevention of disease through immunization and improved nutrition. Implementation is planned to involve families and communities as well as health facilities. Malnutrition and repeated infections forms vicious circle. Formation of knowledge and skills at family and mahalla levels, hygienic conditions and support of breastfeeding is carried out with IMCI action. In Uzbekistan, local diet does not comprise a sufficient quantity of microelements as iodine and ferrum. The IMCI actions will carry out in the integration with programs on addressing with lack of micronutrients (ferrum, iodine, and vitamin A).

3) Maternal Health Care

Asiderotic anaemia incidence is over 65% among women without any differences in age, residence, ethnicity and education. However, rural area has more severe cases than urban area relating with nutritional status and environmental hardness, such as Karakalpakstan and Khorezm Oblast, where the prevalence of anaemia is the highest.

Marital status is, 75% of women age 20-24 years is married. This means 70 % of women of reproductive age are currently married. Modern contraception (pills, condom, IUD and sterilization) is widely known by health promotion and education, for reproductive ages for both sexes. However, natalis promotion policy in1945 –1992 and tradition oppose family planning and force unwanted pregnancy on mothers.

As compared with increasing contraceptive use, number of abortion has been decreasing in the last decade generally. Regionally, urban area like Tashkent City is still higher than other oblasts.

14. SANITATION AND HYGIENE

(1) Organization

In Uzbekistan, State Sanitary and Epidemiological Surveillance Department in the Ministry of Health is in charge those issues. Its 5 main services are; 1) Sanitation and epidemiological service, 2) HIV/AIDS service, 3) Disinfection service, 4) Quarantine service and 5) Health promotion activities.

(2) Safe Water Supply

Especially from the aspect of accessibility of safe water, drought damage of Aral Sea region, such as Republic of Karakalpakstan and Khorezm Oblast are influenced negatively, for instance, low availability of portable water and high risk of water borne diseases such as typhoid, diarrhea and worm infections exist. According to the Multiple Indicator Cluster Survey conducted by WHO/UNICEF in 2000, coverage of water supply is 97% in urban area and 84% in rural area. In Urban area such as 99% in Tashkent City being distributed through but in rural area still depends on well such as in Bukhara for 40%.

In general, those standards are still based on the former Soviet Union Gage, which is called GOST, and it differs from WHO standard. It has been recognized that some chemicals cause large-scale health effects through drinking water exposure. These include fluoride and arsenic. Other chemicals may also be significant in certain conditions. Interest in chemicals hazards in drinking water was highlighted by recognition of the scale of arsenic exposure through drinking water. Waterborne diseases are the greatest risk for infants, young children and the elderly. Microbial hazards continue to be the primary concern in both developing and developed countries and the value of a systematic approach towards securing microbial safety. According to this fact, the Uzbek standard covers this issue enough. Their problem is shifting to execution for surveillance and quality control, due to insufficiency of health budget for it.

(3) Epidemiological Control

From an epidemiological approach, Center of State Sanitary, Epidemiological Surveillance (SES), State AIDS Center and State Screening Center are in charge as executing body for each research and monitoring. Those institutes are under the control of State Sanitary and Epidemiological Surveillance Department. According to the recent study of HIV/AIDS incident rate, its importance is stressed in the Presidential Decree.

(4) Community Management

Not only safe water, but also environmental sanitation should be considered in the cycle of life style. Community is an end point of water supply to be evaluated with quality control, acceptability, and health outcomes. The effective and sustainable strategy for the management of community such as for water quality assessment requires the active support and involvement of local communities. Those communities should be involved at all stages of surveillance and monitoring of water supply, quality and maintenance. Also on the process, health behavior can be developed in;

- Awareness of the importance of water quality and relation to health problems
- Acceptance of the importance of surveillance and understanding for the role of community
- Awareness of the environmental cycle from water to sewage
- Initiatives to take community action for empowerment to better life

15. INFECTIOUS DISEASES CONTROL

The existing situations of infectious diseases are as follows;

- Typhoid and Paratyphoid A, B, C: Incidence has decreased in all Oblasts,
- Dysentery: Number of patients has been declining
- Viral Hepatitis: Many Oblasts experienced higher incidence than the previous year.
- Diphtheria, Whooping cough, Measles and Poliomyelitis: On steady decline for the last nine years
- Tuberculosis (TB): Incidence rate has increased at national level Karakalpakstan and Tashkent City have especially high incidence rate (127.7/100,000 and 82.4 /100,000)
- AIDS: Incidence shows an increasing trend (70 to 80 % of HIV cases are represented by intravenous drug users)

As it is for all medical treatment system existing in this country, system for treatment and examination of infectious diseases are likewise complicated and highly segmented. This gives rise to inefficiency in the process of treatment, specifically when patients are suffering from complications arising from one single infectious disease, or/and when infectious disease itself is an outcome of complications. For instance, a patient with hepatic failure will be sent to infectious disease hospital if the cause is virus; to oncology hospital if he has a cancer; and perhaps to other medical facilities for other reasons. This obviously complicates the process of treatment of, for example, when hepatitis virus being developing into liver cancer. With such a highly segmented system, proper and timely care is difficult to provide.

Further issue is these specialized hospitals are generally small in scale, and in the number of doctors. These hospitals are not necessarily located close to one another, thus problem arises when prompt care assistance for inpatients needs to be provided from other specialized hospitals, or when a hospital visit from other hospitals are requisite for more in-depth examination. Likewise, outpatients with complications need to visit several specialized hospitals, and this is obviously creating such an inconvenience for both doctors and patients.

16. COMMUNITY PARTICIPATION

The Study seeks what can be done by community's initiative and participation; for more effective and self-sustainable primary and preventive care, and promoting health awareness. To this end, Uzbekistan's traditional base of community, Mahalla (self-governed community groups), is going to be focused as it is the smallest and the lowest legitimized administrative unit, granted gradual reinforcement by the government since independence.

As of today, there are 8,142 Mahallas in Uzbekistan; in Tashkent City only, 445 Mahallas. The geographical size of one Mahalla averages 2-3 km in diameter, with roughly 100-500 households living in traditional Uzbek houses or in apartment building. A person who heads the Mahalla is called "Aksakal" (literally meaning a whitebeard in Uzbek), who is, by law, elected by residents every 30 months. Aksakal is usually an old man with considerable deference and respect devoted by the generations; he is often with high educational background, and success in his career or business.

Two main bodies oversee, manage and cooperate with Mahallas: Hokimiyat and the Mahalla Fund. Hokimiyat is a state agent existing at each administrative level; Republican, Oblast and Rayon. It covers overall administrative issues with citizenry in its jurisdiction. Some of their tasks overlap with those of Hokimiyat, and sometimes necessary information is not shared between the two.

In August 1994, by the Presidential Decree, the social assistance scheme was introduced;

basic social welfare assistance for low-income citizens began to be distributed through Mahalla instead of through places of employment and specialized state agencies. Aksakal and Mahalla committee can now decide which Mahalla residents receive benefits. By this, Mahalla can ensure the local realities are reflected, thus identify the truly needy individuals and families. In December 1996, by another Presidential Decree, Mahalla became the vehicle for state benefits to needy children; these benefits consume more than 2% of GDP.
All of the surveyed Mahallas responded that they do distribute welfare money at least to low income families, which they declare all come from the government; although the amount varies quite significantly depending on Mahallas, from 8,000 to 30,000 sum per month.

Medical points at primary level have important links with Mahallas. Although small Mahallas may have to share a single medical point, normally at least one health facility such as SVP, Policlinic or SVA is situated within one Mahalla.

Doctors and nurses often commute from their Mahallas, and the residents rarely move from the Mahalla that they were brought up. This gives local medical point and personnel more responsiveness and awareness of residents' health status, hence creates consistent relation between Mahalla vis-à-vis health facilities. As such, this close link between the Mahalla and medical point, although it may be informal and hard to gauge explicitly, is the strength to be emphasized.

Moreover, as far as medical services are concerned, community initiatives are taken in line with tasks of medical points. Medical check up service was provided for residents by either using the rooms in Mahalla office or at the nearest medical facilities. Many Mahallas responded that last year they organized seminars or lectures on the subject of public health for at least once. However, people in rural areas have difficulty accessing to the pharmacy. Complaints are often heard that many need to travel long distance just to purchase drugs prescribed by the doctor.

17 OTHER DONORS ACTIVITIES

17.1 Multilateral Cooperation

Comprehensive PHC program is being implemented through the World Bank funded Health I Project and planning Health II Project for scaling-up the rural PHC reform, and other multilateral and bilateral cooperation support it. 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 program and safe water supply. Necessary equipment, training and guidelines are provided.
- United Nations Population Fund (UNFPA): reproductive health program 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 program, IEC and training program.
- 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 program 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 fully cover 9 Oblasts.
- 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 in Rayon level health facilities. Also it is planned to create the Regional Blood Banks
- Technical Assistance for CIS (TACIS)/Europe Aid: As EU implementation body, medical equipment supply project is concerned.

17.2 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, PHC program such as and IMCI, reproductive health, GP training, GIS programme. 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

17.3 Non-Governmental Organization (NGO)

There are different types of NGOs working in the health sector. 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.

PART III MASTER PLAN

18. FORMULATION OF MASTER PLAN OF MEDICAL SERVICES SYSTEM

18.1 Flow of Situation Analysis

Major best practices, problems and constraints in the existing 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 according to the following flow.

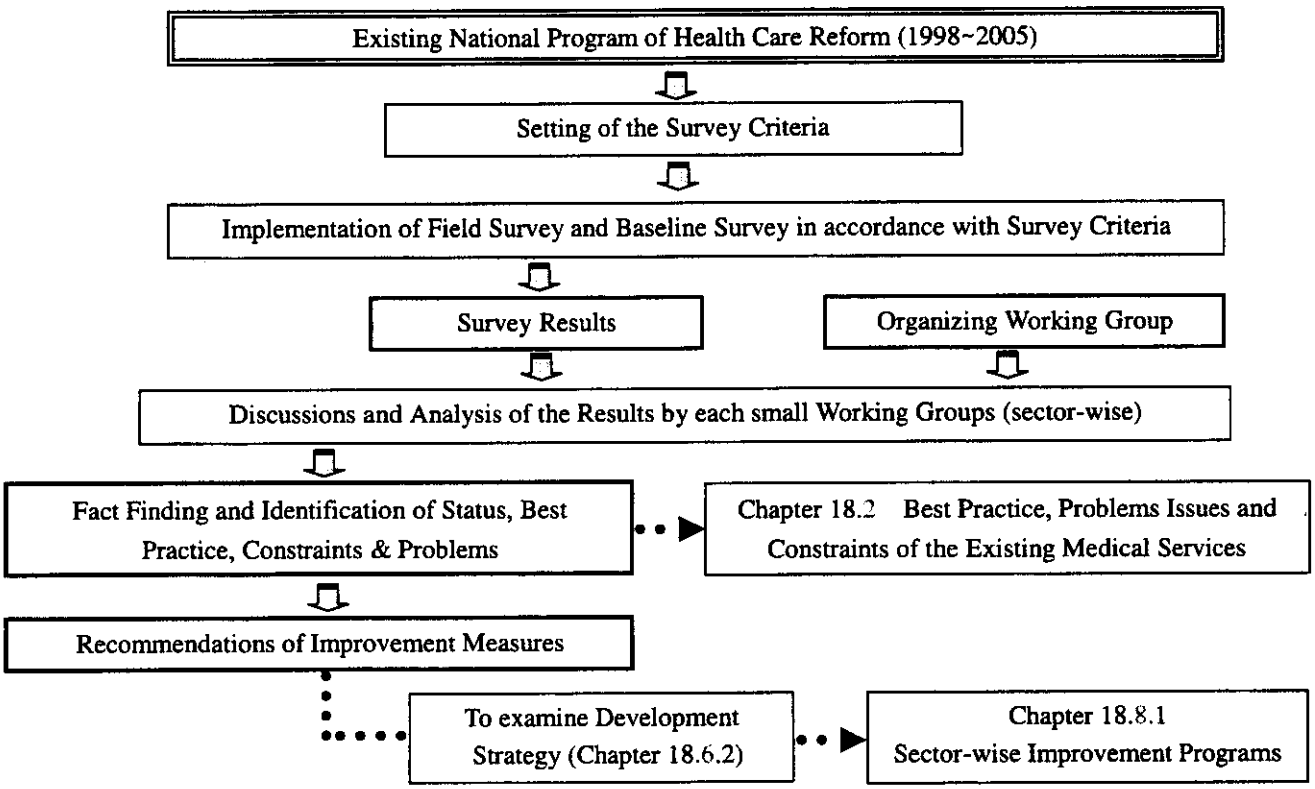

Figure S-6 Flow of the Situation Analysis

18.2 Best Practices, Problem Issues and Constraints of the existing Medical Services

(1) Health Management System and Legislative Base of Health

a) Ministry of Health has a close relation with rural governments and is making an effort of health care improvement throughout the country.

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

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

d) Complying with the policy of the privatization of the medicine, private clinics, hospitals and drug stores are established. However, there are no standard or guideline of medical services for private facilities.

e) In some cases, standards for allocation of medical personnel in accordance with

kinds of medical facilities become the inhibiting factors in the implementation of the medical services efficiently and cost effectively.

(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 of licenses for privatization have been issued since 1998.
c) The model of paid medical service (mixed finance) has been introduced to 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) Effective and rational use of medical finances is rarely attained, due to the complicated structure of referral system and inefficient layout of buildings. Also, there is not enough capability in administration personnel in medical facilities.

(3) Referral System

1) General Referral

a) Ministry of Health has been arranging to simplify the referral system, from the segmented system of former Soviet Union.
b) Ministry of Health and Health Project have established the first referral facility of SVP 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.

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) Some standard of medical services for the pre-hospital stage and emergency medical care facilities at all levels do not exist, although they are not sufficiently adopted in the existing situations.
c) In emergency and other areas of medicine, the unified methodology approach such as treatment guidelines and standards is not developed.

3) Specialized Medical Care

a) The activity of specialized facility is expected not only to perform highly skilled medical services but also to give education to medical professionals and to carry out

necessary and urgent research in each specialty. However, there are some cases that do not function well.

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

c) 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) Adoptions of standard of international disease classification and development of clinical practice guidelines and treatment protocols have not yet been in place.

d) Quality of medical service is defined by smooth and mutual relation between medical service providers and patients. However, the meaning of "quality" is not clarified.

e) There is no provision of appropriate equipment, pharmaceuticals and other resources.

f) Training on the medical personnel to improve their skills and knowledge is not undertaken properly.

(5) Medical Facilities and Equipment

a) 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 it took 10~15 years. The number and function of equipment are not always sufficient to provide adequate medical services.

c) Tibitechnika provides maintenance and repairing of the equipment of governmental medical facilities. Tibitechnika has a good skill for former Soviet style equipment, but not for the advanced western equipment.

d) The management of operation and maintenance for equipment in medical facilities

are weak.

e) The existing standard of equipment list prepared by Ministry of Health is not enough to meet the situation of each referral facilities.

f) The sanitary condition of medical facilities such as lavatory is not well maintained.

(6) Human Resources Development

a) Admission of students to medical institutes, nursing schools and colleges is carried out without analysis of needs, and there is no evidence-based approach to assess the rate of physicians and nurses.

b) The re-orientation of the education system towards production of GPs only will cause the excessive increase of numbers of specialists without further specialization.

c) Seven-year duration of doctors' education can be considered to be an inappropriately long period; 4-5 years to prepare the bachelor can be sufficient.

d) Middle level personnel training including nurse is not sufficient.

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

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

(7) Drug Supply Logistics

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

b) No law enforcement system is in place and no law on generic substitutions

c) Standard treatment guideline at SVP level exists, but needs to be improved.

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

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

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

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

h) Accessibility to drugs is narrow in rural areas.

i) Unsystematic inventory management is prevailing in health facilities.

j) Irrational drug use can be seen.

(8) Health Information System

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

b) There are several health information databases system developed by international organization, donors and RIAC. However, there are no uniform style and no

coordination between those databases (among concerned organizations).

c) The heath information system is mostly manual and aggregated data, except for the most dangerous infectious diseases (this information is transmitted by phone daily).
d) There are several routes/flow to collect and transfer the information and dates (complicated system of data collection).
e) There is a sufficiently organized **population registration system** (ZAGS) but the health system linkages with it in terms of tallying the household data are weak.
f) There are several issues with the data quality; especially the outpatient and house visit data at the primary health facilities.
g) 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 it 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) Negligible financial support for PHC activities to keep international standard in local autonomy.
f) Limited finance for equipment, essential drug and drug logistics for primary health facilities.
g) Despite the fact that health promotion is determined as one of the strategic and highly prioritized directions of Ministry of Health work, it is still unclear which institutions are directly responsible for performing relevant tasks.

(10) Maternal and Child Health Care

a) MMR and IMR in last decade has decreased with social development, however the use of the Soviet definition has a gap between official and survey-based estimates.
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) Limited medical equipment for appropriate diagnosis, essential drug in PHC level facilities is outside the scope of the World Bank project area.
f) Blood transfusion system does not neither meet the demand for cases with urgent

hemorrhage nor ensure safe blood supply.

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

h) Limited involvement of communities and it clings 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 and technical capacity is not sufficient. Replacement of old laboratory equipment and provision of reagents should be addressed.

c) Shortage of sanitary specialists and epidemiologists is observed, especially at the Rayon level. This particular problem might aggravate further, because the student admission rates for the facility of sanitarian and hygiene, have decreased.

d) There are several complicated referral systems of specialized facilities for the sanitation, hygiene, and infectious diseases prevention (e.g. Scientific Research Institute of Sanitation, SES, etc.).

e) There are some cases that each referral and organizations mentioned before, conduct researches and activities separately and individually. Therefore, the collaboration with other referral and organizations are not always appropriately taking place.

18.3 Population Projection

The total population of the Uzbekistan in the target year of 2010 was estimated initially based upon a figure of 1.4% in 1998 (WHO Euro Office statistics, 1999), which will be 28,120,000. 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 S-2 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	
								} 1.51				} 1.72
2005	26,593	13,222	13,371		26,868	13,362	13,506		27,143	13,503	13,640	
				} 1.05				} 1.42				} 1.76
2010	28,031	13,948	14,083		28,837	14,359	14,478		29,644	14,771	14,873	

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).

18.4 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. 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%.

Expectation of macro-economic figures is estimated according to assumptions of the growth rate and inflation rate. GDP per capita by current prices in 2002 is 294,458 sums (US$ 347, 1 US$ = 980 sums) and expectation of per capita in 2010 is approximately 1,411,000 sums (US$ 1,440). Also, estimation of health expenditure expectation per GDP in 2010 is 790.2 to 987.7 billion sums (806.3 to 1007.9 million US$). The per capita of health expenditure shows 28,200 to 35,200 sums (28.8 to 35.9 US$).

18.5 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 indicator for target year 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 indicator for target year is shown below;

Table S-3 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

18.6 Basic Principles of Development Strategies for Achieving Goals

18.6.1 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 at providing 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 health reform program, and decentralization/ privatization policy.

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

4) The area of Uzbekistan is vast. Therefore, 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 implement and realize effective improvement programs among the Ministry of Health, related ministry, international organization and NGOs.

6) There are many cases that the plans are formulated only in the light of medical supply side. Therefore, the plan should be formulated in accordance with the needs of the demand side so that medical services enjoys substantial improvement.

18.6.2 Objectives and Strategies of the Master Plan

The objectives and strategies of this Master Plan (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 existing medical services and priority issues for improvement, which were obtained through analysis of field survey results.

(1) Overall Goal

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

(2) Objectives, Strategies and Activities

Table S-4 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
	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 similar 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 governmental administration and medical facilities"	**Activities**	
	C2.1	Strengthening of health financing management system and monitoring capability in the governmental organizations
	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

18.7 Basic Planning Approach for the Formulation of Master Plan

The health care sector consists of small sub sectors such as health financing, drug supply logistics and equipment and so on. Therefore, for the formulation of the Master Plan, the programs will be considered from both sector-wise (vertical) and comprehensive (horizontal)

aspects. Moreover, situations of each Oblast and area have different characteristics, therefore, improvement programs also need to be considered from area-wise aspect.

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, these resources will be allocated efficiently and rationally in accordance with the needs of the demand side. Accordingly, the allocation of resources was also considered from vertical, horizontal (comprehensive and sector-wise aspects) and area-wise aspect.

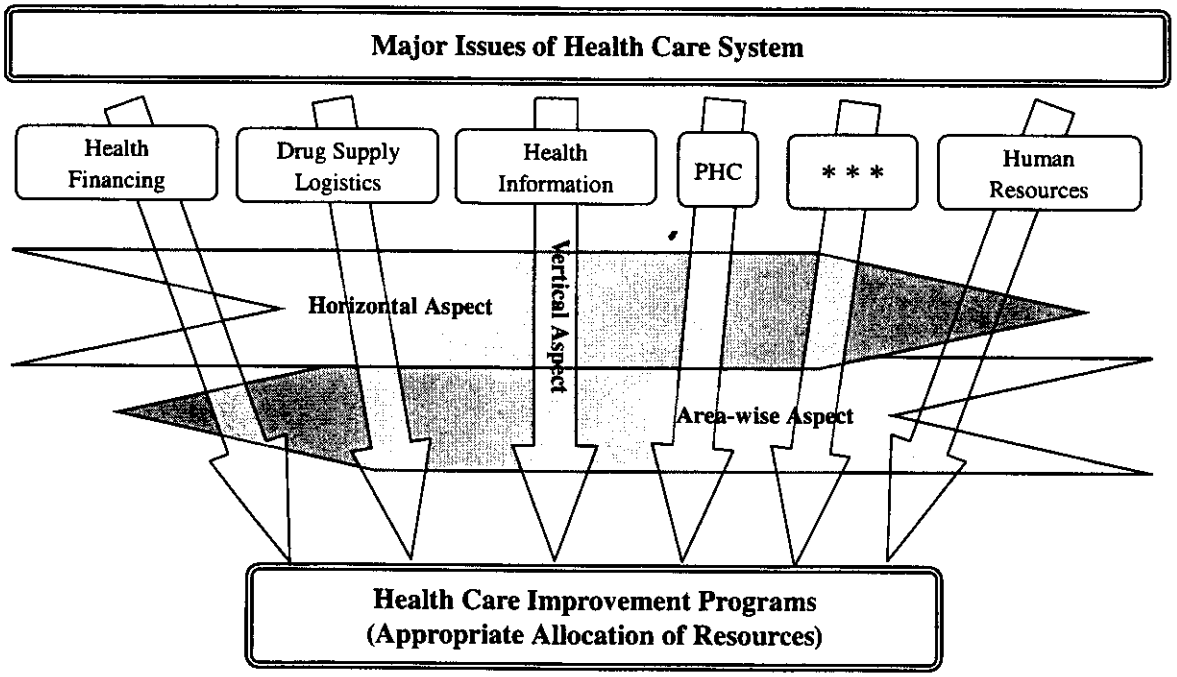

Figure S-7 Work flow for Formulation of Effective Resource Allocation Programs

18.8 Improvement Programs under the Master Plan

18.8.1 Sector-wise Improvement Programs

(1) Health Financing: Over-all Strategy

To secure the health of the present and future generation of Uzbekistan, 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.

1) Improvement of the Financial Base of the System

In 2001, 9.6 % 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 %. This does not

augur well as the first phase of reforms identified in 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 1). 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.

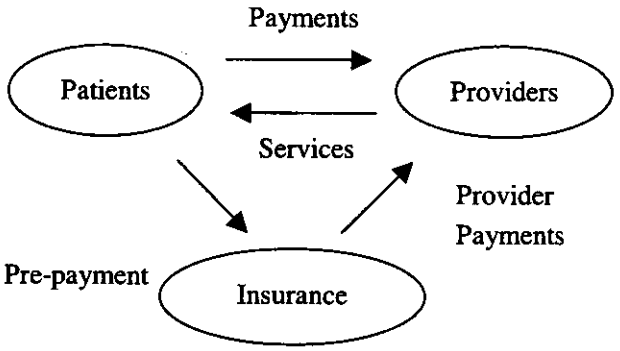

Figure S-8 The Insurance, Patient, Provider Link

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, 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.

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) Patients can choose any hospital to receive treatment in Uzbekistan. However, hospitals at the third level are divided into various specialties, 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 needs to be undertaken, and this will also improve efficiency in hospital organization.

2) Comprehensive rural medical services system at Oblast level will be designed by having the CRH and Oblast General Hospital take leading roles, and capability of CRH and Oblast General Hospital facilities will be extended.

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, financial management and so forth.

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

5) 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.

6) 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.

7) A centralized laboratory testing system should 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 laboratory testing results and accuracy of data will be improved, and the cost for testing will be reduced.

8) 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 (HMIS)

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 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 carryon 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 interms 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/experts, 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 upgradation 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 the 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 functional in CRH and Oblast General Hospital. The hospital building is functionally divided into a) the outpatient examination and the treatment sections, b) operating rooms, ICU and the function diagnosis section, and c) in-patient section under the same roofing.

3) Examination policy of equipment list

The Master Plan for the hospital facility and the 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.

4) Ambulance

One unit of ambulance is to be provided for each hospital, because most of the ambulances at present in the hospital 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, radio communication system needs to be installed in the ambulance, especially in rural the areas where telephones are not always available.

5) Operation and maintenance

Tibitechnika provides the management of operation and maintenance for equipment in the contracted hospitals. However, engineers at Tibitechnica are not skilled in managing several kinds of advanced western equipment. As it is indispensable to maintain medical equipment in hospitals, a regular training program needs to take place

on government budget so that skill of engineers will be improved.

6) As part of hygiene management, cleaning and maintenance in hospital lavatories and in public lavatories in nearby restaurants needs to be kept sanitized at all times.

(5) Drug Supply

1) Existing essential drug list covers almost drug without giving consideration to diseases structure and drug effect, this is creating confusion in PHC level facilities. Therefore, it needs to establish the essential drug list for PHC level.

2) Ministry of Health made an effort to establish the legislative base of drugs. In present situation, Ministry has to arrange a formulation of system for implementation of the legislation. In addition, National drug policy should be revised, taking into account 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 shall encourage and support the domestic manufactures to 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 and secured.

   - 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 in medical for the avoidance of stocks and insufficient use of budget.
   - Train the staff on 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 the adequate use and management of the treatment, and education and 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/experts
- The development of qualification requirements to different development of the need in specialists norms.
- To foster and train the laboratory technician, pharmacist, financing management, medical equipment engineer and so on.

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 on 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 the 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, priory 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.

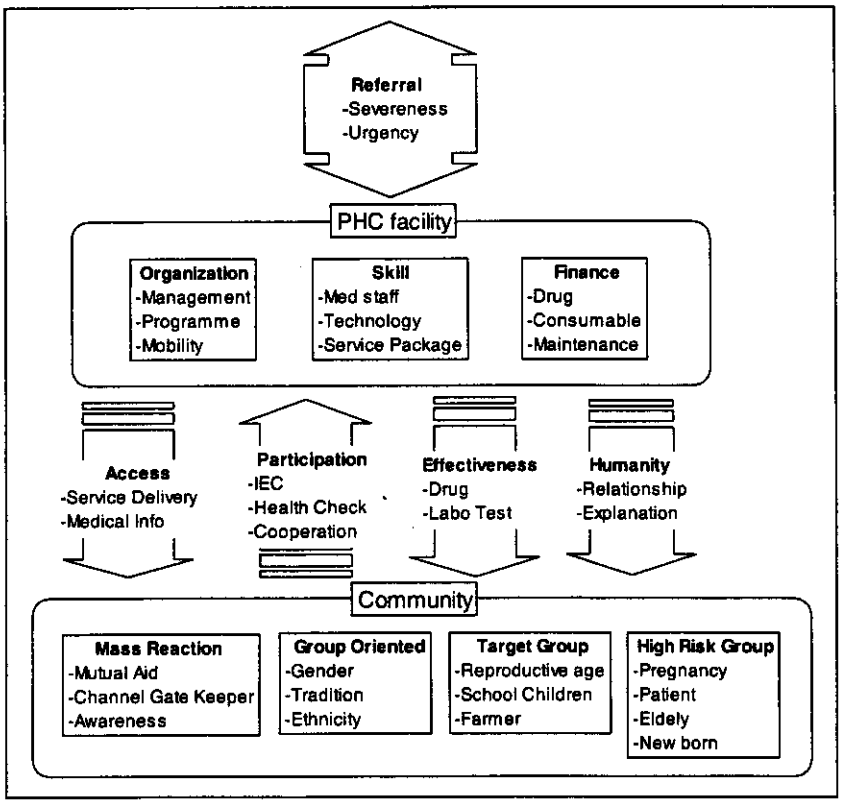

Figure S-9 Framework of Improved Health Outcome for PHC

2) Recommendation

For primary health care, GP and universal nurse are newly assigned and these trainings

can be 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 issue must be concerned groundwater resource in community, in Aral Sea region, and sustainability of stable safe water supply. In the point of quality control in groundwater, 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 for transportation expenditure. It is also important for the 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.

18.8.2 Area-wise and Comprehensive Improvement Programs

In Uzbekistan, it shows various characteristics depending on the areas, however, the results of Baseline survey shows 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).

(1) Standard Medical Services Model

1) Comprehensive rural medical services system at Oblast level will be designed by having the CRH and Oblast General Hospital take leading roles. This will conform to the recent decentralization policy, and improve accessibility to the medical facilities for the people in rural areas.

2) Capability of CRH and Oblast General Hospital facilities will be extended for more effective functioning through establishing above mentioned system.

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, patient referral system, emergency medicine, medical information system, preventive medicine, drug management, operation and maintenance system, financial management. Within the

CRH, which is central to the medical services of Rayon, will be established in collaborative manner, whereby coordination and supervision between the CRH and SVP will be realized.

4) At oblast level, it is practically difficult to transfer the patients from Oblast to Tashkent city. Thus, more efficient medical services system at Oblast level will be established with the Oblast General Hospital playing a central role. This requires the consolidation and centralization of general out-patient treatment, in-patient treatment, laboratory tests and diagnostic/functional examinations, specialized medical services and emergency medical services, thereby medical services and cost will be best utilized.

5) For the achievement of the qualified medical services and appropriate management for financing and administration, the training and education for the human resources will be implemented; standards and guidelines for the effective activities will be established.

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/functional examination, drug management, and operation and maintenance 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. 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.

9) The programs attempt to introduce a system for the efficient managing and operating for health financing and budget at the Oblast and Rayon level. Also, the medical insurance system for universal coverage will be introduced. Therefore, establishment of organization for insurance and fostering the financing personnel are important.

10) The existing health information system, data are aggregated and it is difficult to analyze the detailed situation of Rayon and medical facility level. Therefore, the data

processing equipment will be provided to the Rayon level. As a result, the medical data collection and data communication time will be shortened; the information and data will be used more timely.

(2) City Type Medical Services Model

1) City type PHC model for the first access point of the out-patients will be established. Moreover, GVP (city physician's point), PHC facility in city will be established with the system of medical treatments and patient referral system built in. World Bank proposed the same concept in the Health II Project, therefore it is important to collaborate with international organizations for achieving PHC services at city level.

2) At CCH (Central City Hospital), a first access point for in-patients, extensive system will be in place, consisting of the system of medical treatments, patient referral system and medical information system, drug management, operation and maintenance system, and financial management.

3) For more effective and better qualified medical services, it is necessary to improve the conditions of facilities, equipment and drugs stocks in the medical facilities. In addition, capability of drug management will be extended, operation and maintenance of facility and equipment strengthened.

4) The training and fostering the human resources will be implemented for achieving better qualified medical services and more appropriate management for financing and administration. Also, standards and guidelines will be established to encourage efficiency in accomplishing tasks.

5) The Ministry of Health puts no control over private clinics, hospitals, and drug stores at city level. Therefore, to secure the qualified medical services, standards and guidelines are necessary. Also, government capability of monitoring and supervising the private sectors will be strengthened.

6) The emergency medical services system in city areas, especially in Tashkent will be further strengthened. Tashkent City holds large size of population and with the population of Tashkent Oblast combined, it accounts to more than 20% population of the whole country.

7) Specialized medical institutes at top referral are located in the big cities. The main tasks of these institutes as top referral facilities are to implement high level specialized medical services to the entire population of Uzbekistan population, to educate and foster the specialized doctors and research activities. Therefore, to serve these purposes, the capability and activities of the specialized institutes will be enhanced.

(3) Medical Services Model for Remote Areas

1) Main concept for the development of the rural medical services is practically same as the standard model. The effective rural medical services system will be designed through the establishment of the self-contained medical services system within the Oblast. Therefore, the function and capability of CRH and Oblast General Hospital facilities will be enhanced.

2) In addition, the medical services for the remote area will include the following:

   - For remote areas, PHC model (SVP) will be established. Moreover, the system of qualified and effective medical treatments will be established.
   - The effective patient referral system will be established with provision of communication instrument and transportation vehicles.
   - As the Health II Project by World Bank presents similar concept, it important to collaborate in achieving the PHC services system in the remote areas.
   - In case of areas extremely remote, medical services at FAP under the control of the CRH and SVP will be provided and strengthened.
   - Medical activities such as home visit and pediatric health examination for mahallas in the remote areas will be promoted from the stand point of preventive medicine.

3) By the provision of legislative bases, priory distribution of medical resources will be arranged to the remote areas. The existing health budget allocation system based on per capita is inhibiting the implementation of adequate medical services. It should consider that regardless of the size of medical facilities, minimum fixed cost is unavoidable. In addition, the governments have to appoint the medical personnel to the remote areas.

4) Specifically, in remote areas, 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.

5) Different approach, from the standard medical services model, is taken as consideration given on the patients' accessibility (time and the distance) to the medical facilities. As key-stations, the branch and/or liaison facilities of SVP or CRH will be provided in the remote areas. Likewise, laboratory tests and blood transfusion system will also follow the same flow of system.

18.8.3 Concept of the Stage -wise Improvement Programs

M/P will present the stage -wise improvement programs for effective implementation of the health care reform. At the initial stage, the pilot study project will be carried out and examined on how designed functions and programs are working. In addition, it will be

attempted to redesign the project objectives during the project implementation process. At the next stage, experience and know-how attained, as well as the system established through the process of first stage will be expanded to other areas.

The following stage will be to apply lessons learned from the initial stage (how to implement the pilot study, how to achieve the result successfully) to the planning of the programs for the expansion processes. Specifically, in the short term, the pilot study projects at Rayon and Oblast level will be implemented. In the medium and long term, expansion of these projects will be attempted from pilot Rayons to others Rayons, and from pilot Oblast to others.

On the other hand, note that the objective of the pilot study project is not to input much resource to the limited areas, but to emphasize the implementation of the well-designed programs, the capacity and institutional building of the system and transferring know-how, all of which are expected to be expanded into the others areas.

19. PRIORITY PROGRAMS

(1) Main Concepts for the Formulation of Priority Programs

1) Sector-wise Approach to the Existing Medical Services

The first step of the priority programs is to analyze the situation of the sector-wise medical services system existing in Uzbekistan. From those output, priority programs of the sector-wise improvement programs are formulated.

Table S-5 Sector of Situation Analysis and Formulation of Improvement Program

1. Health Financing (includes Health Management System and Legislative Base of Health)
2. Referral System (includes Quality of Medical Services)
3. Health Information System
4. Medical Facilities and Equipment
5. Drug Supply
6. Human Resources Development
7. Primary Health Care (includes Health Promotion, Maternal and Child Health Care, Sanitation, Hygiene, and Infectious Diseases Control)

2) Comprehensive Approach for the Medical Services

For the consideration of improvement of the national level medical services, it has to examine the all sectors related with health care and medical services and formulate the comprehansive improvement program which cooperates and collaborates among each sector.

Therefore, for achieving the overall goal "improvement of the national health situations of all population in Uzbekistan", this M/P recommends the comprehensive improvement programs in accordance with three Objectives for M/P formulation.

(2) Stage-wise Development Approach; Time Scale

After the formulation of improvement programs through the process of above-mentioned approaches, priority programs of this M/P were selected in accordance with achivement of the three M/P objectives, effectiveness, time scale of the implementatiom. Priority programs and planned priod, scaling of priorities are shown in the table below.

Table S-6 Timetable and Priority of Improvement Programs

Items		Short ~2005	Mid-Long Term (Target Year) 2006~2010	Super Goal ~2015*	Priority **	Assumptions and Required Conditions
PHC Level	Strengthening of PHC			■ ■	-	Top priority of PHC
	1) Strengthening of SVP (Health Project & ADB Project)		■ ■ ■ ■ ■	■ ■	AAA	Wide range expansion for implementation Simple implementation package
	2) Improvement of rural healthcare services by collaboration with SVP & CRH **19.3 Strengthening of medical services in Rayon level medical services system**				-	Development of SVP is the priority
	a. Pilot Project				AAA	The area where SVP needs to be up grade
	b. Expansion to national level				AA	Wide range expansion for implementation
2nd Level	**19.3 Strengthening of medical services in Rayon level medical services system**			■ ■	-	Top priority of MCH & rural health development
	1) Strengthening of MCH (ADB Project)		■ ■ ■ ■ ■		AAA	The budget is to be allocated by ADB
	2) Improvement of medical services in CRH				-	Needs for MCH/ anemia control CRH is key facility of rural medical services
	a. Pilot Project				AAA	Small scale trial can be adopted
	b. Expansion to national level				AA	Wide range expansion for implementation
3rd Level	**19.4 Strengthening of Oblast level medical services system**			■ ■ ■ ■	-	Needs for integration for subdivided hospital function
	1) Establishment of effective medical services system in Oblast level				-	Operation cost is reduced by project implementation at project site facility
	a. Pilot Project				AAA	Pilot must be carefully chosen for feasibility
	b. Expansion to national level			■ ■ ■ ■	AA	Cost allocation does not meet with solution

Items		Short ~2005	Mid-Long Term (Target Year) 2006~2010	Super Goal ~2015*	Priority **	Assumptions and Required Conditions
All System	**19.1 Strengthening of health financing**			■ ■ ■ ■	AAA	Top priority of improvement of health financing Integration with "Health II" project for management training
	19.2 Establishment of health insurance system			■ ■ ■ ■	-	Area-wise category must be considered due to economical gap
	a. Pilot Project				AAA	Pilot must be carefully chosen for feasibility
	b. Expansion to national level			■ ■ ■ ■	AA	It takes long term to permeate equally
	19.6 Improvement of Blood Transfusion System				-	Needs for MCH/ anemia control Needs for infection control Need for blood security
	a. Pilot Project				AAA	Adequate scale of population (1~3 Oblasts) can be adopted
	b. Expansion to national level				AA	Cost allocation must be considered
	19.5 Establishment of Health Information System				-	Priority of health information system for health strategy & plan
	a. Training to RIAC & establishment of System				AAA	Integrated with donors activities for health information system
	b. Training rural staffs & expansion to national level				AA	Integration with "Health II" project using SVP/ CRH lab Cost allocation must be considered

Remark : Monitoring & evaluation period
Short term programs

Note: * The system of health care reform and medical services strengthening to be established until target year of 2010. It assumes that the activities of expansion to countrywide of the established system by M/P and fixture of sustainable system will be continued up to 2015, that is a year of super goal achievement and out of the M/P target year. However, it is important to continue the improvement program activities.

** Priority, AAA is high

***The number of program means number of priority programs of this chapter

(3) Relation with M/P Objectives and Priority Programs

Relation with M/P objectives, countermeasures for achivement of the objectives, related health sectors for implementing of the programs of countermeasures and priority programs including with each health sector are shown in the following table.

Table S-7 Relation with Objectives and Priority Program

Objectives	Countermeasures	Related Health Sectors	Program Title
A Humanity & Equity (Improvement of Quality & Equal Access of Medical Services)	Improvement of the quality of medical services and enhancement of equal access to medical services for all population	1. Health Financing (with Health Management System and Legislative Base of Health) 2. Referral System (with Quality of Medical Services) 6. Human Resources Development 7. Primary Health Care (with Health Promotion, Maternal and Child Health Care, Infectious Diseases Control)	16.2 Directions for a National Health Insurance Program for Uzbekistan 16.3 Improvement of Medical Services at Rayon Level 16.4 Improvement of Oblast Medical Services System and Oblast General Hospital 16.6 Improvement of the Blood Transfusion System
B Efficiency & Sustainability (Establishment of Effective Madical Services)	Establishment of effective system of medical services for the population's health	2. Referral System 3. Health Information System 4. Medical Facilities and Equipment 5. Drug Supply 6. Human Resources Development	16.3 Improvement of Medical Services at Rayon Level 16.4 Improvement of Oblast Medical Services System and Oblast General Hospital 16.5 Establishment of Health Management Information System 16.6 Improvement of the Blood Transfusion System
C Cost-Effectiveness & Sustainability (Improvement of Health Financing System)	Improvement of the effective use of the health financing and introduction of new financing mechanism	1. Health Financing 3. Health Information System 6. Human Resources Development 7. Primary Health Care (with Health Promotion, Sanitation, Hygiene, and Infectious Diseases Control)	16.1 A Master Plan for Health Financing: 2004–2010 16.2 National Health Insurance Program for Uzbekistan 16.3 Improvement of Medical Services at Rayon Level 16.4 Improvement of Oblast Medical Services System and Oblast General Hospital 16.5 Establishment of Health Management Information System 16.6 Improvement of the Blood Transfusion System

Relation with three M/P objectives and priority programs is shown below;

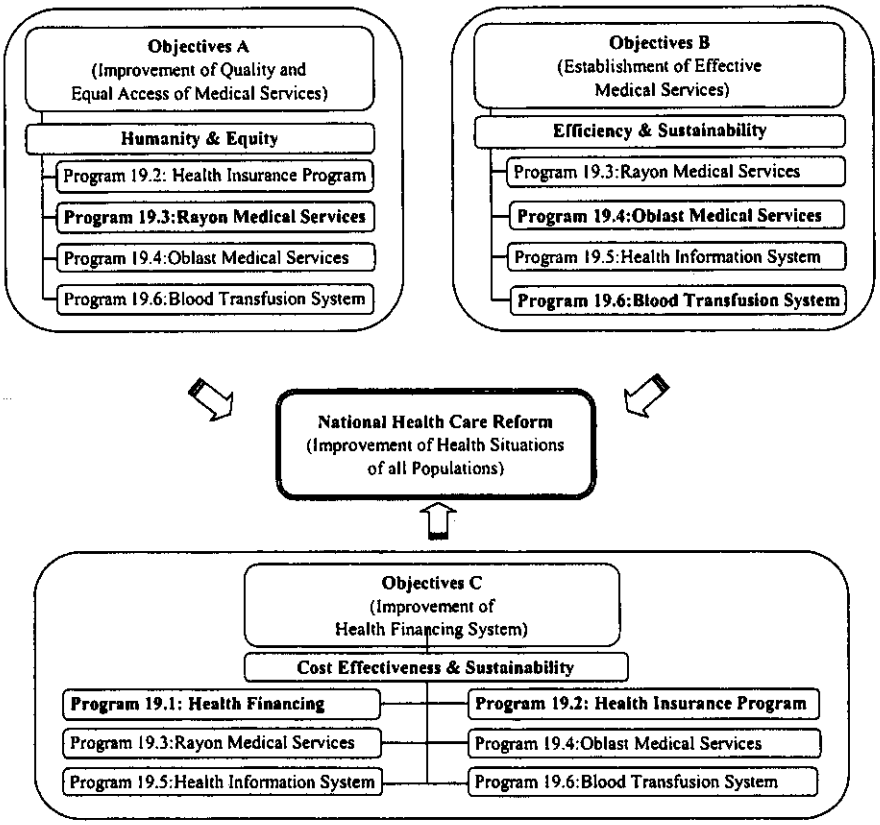

Figure S-10 Relation with M/P Objectives and Priority Programs

19.1 A Master Plan for Health Financing: 2004–2010

19.1.1 Over-all Goal

To develop a health financing system that will improve the capacity of the health sector to secure the health of the present and future generations of the population in Uzbekistan.

19.1.2 Background and Rationale : Need for Reform

In 1998, the Government of Uzbekistan embarked on the process of health reforms to improve the health of its citizens. Reforms in the budget allocation process deems to be necessary; and an alternative system of funding is needed.

19.1.3 Objectives

1) To improve the financial base of the health care system through budget allocation reforms across all levels of care, including free care;
2) To facilitate the establishment of a market in health services, while at the same time providing for clear mechanisms to protect poor and vulnerable groups;

3) To introduce risk pooling and purchasing elements in the health system through a third party or health insurance system; and
4) To strengthen capacities to develop, support, manage and monitor health financing system reforms.

19.1.4 Project Location

The proposed plan will be national in scope, but pilot tests and programs may be made at specific sites.

19.1.5 Target Beneficiaries

Activities are with national scope, and benefit the whole country.

19.1.6 Duration

The period covered by the plan is 2004-2010.

19.1.7 Implementing Agency

Ministry of Health with general directions provided by a multi-sectoral body involving the Ministries of Finance, Macroeconomics, Statistics, Cabinet of Ministers and other agencies

19.1.8 Project Component

Table S-8 Project Component for Health Finance Program

Component/ Activities	Project Type	Priority Scale (*** high)
1. Improvement of the Financial Base of Health Care System		
1.1 Guarantee of Free Package of Services		
1.1.1 Review of Benefit Package, Determination the Costs and Identification of Financial sources to support implementation	Costing Study	***
1.1.2 Determination of the Feasibility Having Multi-level benefit structure	Feasibility study	***
1.2 *Budget Allocation Reforms*		
1.2.1 Design and develop initiatives in community participation and financing to support SVP reforms	Pilot project	**
1.2.2 Development of and pilot test of improvements to public budgets resource allocation system to rayon, oblasts and republican centers	Systems design, pilot test;	***
Component/ Activities	**Project Type**	**Priority**
1.2.3 Develop, design and implement grants and tender mechanisms for applied scientific research	Systems design, implementation	**
1.2.4 Development of Quality Monitoring system for reformed areas	Monitoring and Evaluation	**
1.3 *Mixed Financing Reform*		
1.3.1 Study on impact of mixed charging reforms on utilization by the poor and provider behavior	Research	*
1.3.2 Initiate Hospital Reforms, through systems development and governance pilots	Systems Design, Pilot Tests and Training	**

Component/ Activities	Project Type	Priority Scale (*** high)
1.4 Secure Foreign Assistance, investments and credits to the health sector		
1.4.1 Creation of a donor coordination forum	Coordination meetings	***
1.4.2 Design and support for 'contest-based' activity to bring out best practice, innovations in health service delivery, organization, policy and financing	Information, Education & Communications (IEC)	*
2. *Introduction of Market Mechanisms in the Health Sector*		
2.1 Introduction of a Price System in Public Health Care Facilities		
2.1.1 Develop and implement exemption mechanisms to public charging system	Technical Assistance	***
2.1.2 Strengthening price introduction through Development and update price index for selected medical items	Database development	*
2.1.3 Develop and Conduct Information campaigns and staff orientation for charging system	IEC	**
2.1.4 Conduct Operations Research to determine efficient multi-specialty rayon facility for facility integration	Operations Research, Institutional Reform, Training	***
2.2 *Private Sector Development Activities*:		
2.2.1 Development of a regulatory framework for facilities	Technical Assistance	***
2.2.2 Facilitate Privatization of Public Health Care Facilities		
1) Development of Business Plans for Specialist Centers of Surgery, Cardiology, Urology and Ophthalmology	Institutional Reform	**
2) Design and Implement alternative sale and management mechanisms for public health care facilities	Systems Design, Study Tour	**
3) Review of laws affecting privatization efforts (labor, property use, disposal of property, financing)	Technical Assistance	***
3. Development and Introduction of Risk Pooling and Purchasing through a Health Insurance program		
3.1 Planning the Development of a compulsory system of health insurance		
3.1.1 Consensus Building on health insurance systems	Workshops, Study Tour	***
3.1.2 Study to determine population coverage, contribution structure and payments	Technical Assistance	**
3.1.3 Studies to support design of provider payment schemes	Technical Assistance, Research Grants	**
3.1.4 Development of Systems for Purchasing: Accreditation, Information database, legal systems	Technical Assistance	***
3.1.5 Determine organizational structure of the health insurance program	Technical Assistance	**
3.1.6 Development of system of grievance, complaints and arbitration	Technical Assistance	**
3.2 Development of the Legal Base for the program		
3.2.1 Draft Law for compulsory health insurance	Technical Assistance	**
3.2.2 Development of Implementation Guidelines	Technical Assistance	**
3.2.3 Stakeholder orientation and training	IEC, Training	**
3.3 Development of Information Systems and reporting forms for Health insurance	Systems Design, Training, Study Tour & Equipment	*
4. Strengthening Capacities for Health Financing Reforms		
4.1 Adaption and installation of a national health accounts system to monitor system performance		
	Technical Assistance	***
4.2 Capacity building activities to implement and manage a health reforms		
4.2.1 Training Needs Assessment (TNA) for Health Financing and Policy	Technical Assistance	***
4.2.2 Conduct of Training Activities as identified in TNA	Technical Assistance	***
4.3 Creation of a Core Health Financing Group within the MOH		
4.3.1 Organize a health financing unit with nominations from MOH and non-MOH bodies;	Institutional Reform	***
4.3.2 Selection, Support for and Education of 5 PhDs in Health Economics	Education Grants	***

Table S-9 Timetable of Implementation for Health Finance Program

Activity Number		2004 -2005		2006 – 2008			2009 -2010	
0	**1. Preparatory Activities: 2003**							
4.3.2	1.1 Selection, Deployment of Scholars							
	1.2 Donors' Coordination Forum	X	X					
	1.3 National Health Accounts:	X		X			X	
1.4.1	Installation and Training,						X	
4.1	Regular Updates	X	X		X			X
	2. Benefits Planning							
1.1.1	- Review of Guaranteed Package	X						
1.1.2	- Recommendations on Benefit and Financing Structure	X						
2.1.3	- IEC		X	X				
3.1.2	- Actuarial Determination		X					
2.1.2	- Price Index Development and Monitoring of Benefit Items		X		X		X	
	3. Regulatory Review/ Reforms							
2.2.1	- Standards and Regulations for Health Facilities &	X	X					
	- Dissemination Activities			X	X			
2.2.2.3)	- Review of Laws affecting and recommendations for privatization / law passage/ implementation	X	X					
	4. Budget Reforms							
1.2.2	- Review of recent initiatives and formulation of new resource allocation guidelines	X	X					
	- Pilot Testing			X				
	- Roll-out & Dissemination		X	X	X			
1.2.3	- Guidelines for allocation to Scientific Research		X					
	5. Protecting the Poor Initiatives							
1.2.1	- Design and Develop Initiatives in Community Participation & Financing		X	X	X	X	X	
2.1.1	- Exemption Guidelines & Implementation/ Monitoring	X	X	X		X		X
1.3.1	- Study Impact of Mixed Charging			X				
1.2.4	- Quality Monitoring for Reformed Areas		X	X	X	X		
1.4.2	- IEC Activities/"Contests" to bring out local level initiatives			X	X			
	6. Facility-level Reforms							
1.3.2	- Review, Design, initiate hospital reforms and governance pilots	X	X	X	X	X	X	X
2.1.4	- Conduct Operations Research to determine Efficient Multi-specialty rayon level facility	X						
	- Training		X	X	X			
	- Roll-out Institutional Reforms			X	X	X		
2.2.2.1)	- Business Planning for 4 Self-Financing Specialist Centers	X	X					
2.2.2.2)	- Design and implementation of new disposal mechanisms for public health facilities		X	X	X			
	7. Planning the Development of A compulsory Health Insurance System							
3.1.1	- Consensus Building Activities; Study Tours	X						
3.2.1	- Draft Law on Compulsory Health Insurance (after actuarial study above)			X				
3.1.3	- Design Systems for Provider Payment : Case identification, costing studies, determination of scheme	X	X	X				
3.1.4	- Development of Purchasing Systems: Accreditation, Legal Systems, provider data base	X	X	X	X			
3.1.5	- Organizational Structure & Staffing Study of Health Insurance Program			X				
3.1.5	- Systems of Grievance, Complaints and Arbitration			X				
3.2.2	- Implementation Guidelines				X			
3.2.3	- Stakeholder Orientations/ Training				X	X	X	X
3.3	- Information Systems and Forms			X	X			
	- First Transfer of Funds/ Enrolment					X	X	
0	- Evaluation of Reform Process				X		X	

19.1.9 Management Issues

The creation and funding of a Health Financing Policy Unit (HFPU) within the Ministry of Health to provide project oversight. Its tasks are the following:

a) Drawing-up a work-plan to implement plan
b) Preparing of terms of reference for project activities
c) Initiating activities necessary to carry out plan
d) Coordination of activities, within the scope of the plan and across sectors
e) Facilitating conduct of activities with other units of MOH and the government and other donor activities
f) Monitoring progress of work
g) Provision of regular reports on the plan's progress, activities and output
h) Facilitating technology transfer to the different units of government.

19.2 Directions for a National Health Insurance Program for Uzbekistan

19.2.1 A Health Financing System Framework

Figure 16.2 illustrates a health financing framework that takes into account health systems, financing functions, and financing sources. It is often the case that the funding source identifies the health system.

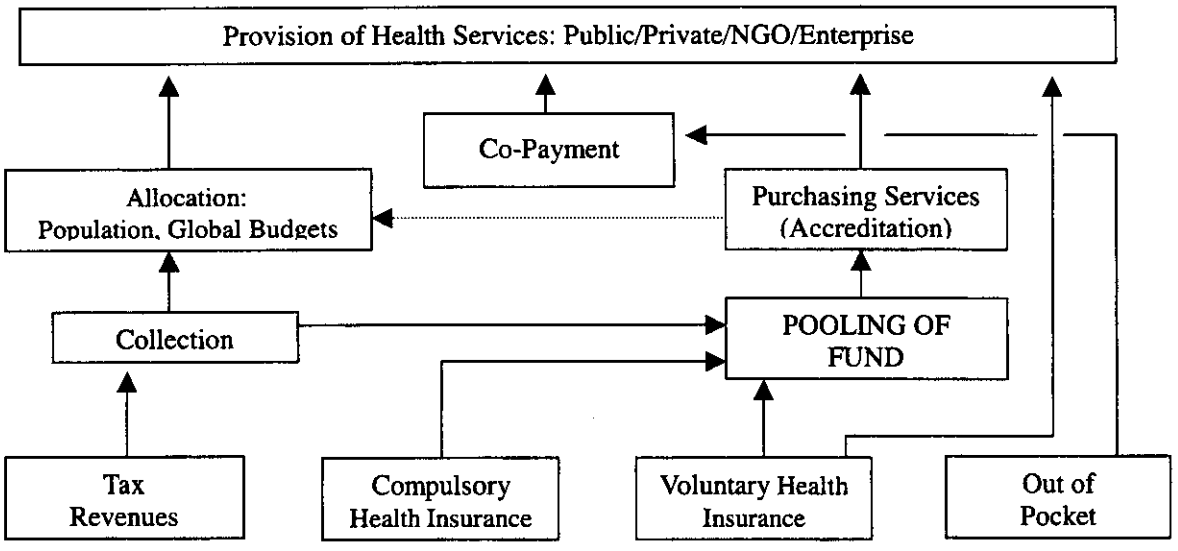

Figure S-11 A Proposed Health Financing System for Uzbekistan

(1) There are Four Major Sources for Funds

1) General revenues of national or local governments largely generated through taxes;
2) Compulsory health insurance or mandatory insurance schemes. Payment for such obligatory systems is considered a tax.

3) Voluntary health insurance schemes which are entered into and paid by individuals or other groups on behalf of individuals; and
4) Out-of-pocket payments, which are individual or household payments made to procure a service. The payments are in the form of user charges (direct payments) or premiums for insurance coverage. Out-of-pocket payments may also be official co-payments for service charges or unofficial payments, or payments made to staff or for items which normally would be free.

(2) Features of the Proposed System:

1) The system comes into place gradually.
   a. Reforms in alternative provider payment schemes for a reformed health delivery/ provisioning system.
   b. Prepayment experiments at mahalla (lowest political administrative unit) levels and in some enterprises.
   c. Develop facility-based pooling of out-of-pocket payments.
   d. Adopt a disease classification system and improved information systems for timely and accurate data.
   e. Legal basis for compulsory health insurance.
   f. Gradualism in implementation also implies determining the criteria for coverage and expansion.
2) Compulsory pooling of funds in most cases happens a year or two after the legal base for compulsory insurance is established.
3) A Single Insurance Fund System, with a National Health Insurance Agency (NHIA) responsible for funds collection and premiums pooling will be the most viable system.
4) Local budget systems for health facilities should be used under the new provider payment schemes.
5) The NHIA may contract with facilities to provide services for members.
6) The NHIA is responsible for accreditation of facilities for quality assurance and control.
7) Payments to providers will be based on negotiated rates and case payments.

19.2.2 Policy Issues

1) Multiple funding vs. Unified Funding
2) Multiple Funds Holding vs. Single funds holding
3) NHIA funs vs. Tax Revenues/Budget fund
4) Role of the Ministry of Health vis-à-vis that of the NHIA

19.2.3 Transition Issues

Before the first premiums are made and enrolment activities undertaken, the development

stage will require capacities to undertake the following activities:

1) Determine benefit package, if non-comprehensive
2) Develop and understand the price system in health care
3) Determine the premiums and contribution structure
4) Develop accreditation systems
5) Outline basic insurance functions
6) Research health insurance experience to improve design of the proposed system.

19.2.4 Concluding Remarks

The evolving health finance system for Uzbekistan will result in some key benefits for Uzbekistan's health system. These include:

1) Coordination of all sources of funding under a common policy framework;
2) Universal coverage for citizens;
3) Less duplication of responsibilities for service provision, resulting from vertically integrated health systems associated with each level of government's administrative structure, through active purchasing of care arrangements;
4) Introduction of an insurance function to the system;
5) Outlining of explicit policies on access by the poor backed by clear financing incentives.
6) The proposed system takes into account the issues raised above and provides for a single policy framework for reforms, whereby budget reforms and the introduction of a health insurance system is viewed in parallel.

19.3 Improvement of Medical Services at Rayon Level

19.3.1 Background and Rationale

For the improvement of the first referral system in rural area, it is important to strengthen CRH which has a role of providing medical services to the rural areas (Rayon level). The strengthening of rural medical services system at Rayon level will be established through the strong collaboration and cooperation with SVPs and CRH in the designated Rayon.

19.3.2 Overall Goal

To establish the strengthened rural medical services system at Rayon level so that more qualified medical services will be realized and health situation in rural areas will improve.

19.3.3 Objectives

To establish overall improvement program for medical services, and to set a qualified model

with CRH taking a central role. Results of the program and know-how are to be expanded to the national level.

19.3.4 Project Location

Selection from large scale and small scale Rayons, also giving consideration on whether Health I project is implemented or not.

19.3.5 Target Beneficiaries

Target beneficiaries are inhabitants living in the project areas, and medical personnel in CRH and SVPs in the project Rayons. In addition, the beneficiaries will be expanded to nationwide.

19.3.6 Project Duration

Three years from 2004 to 2007.

a. Preparation of the pilot program, design of the action plans, provision of equipment: 1 year
b. Implementation of pilot program: 1 year
c. Monitoring, evaluation, analysis of result, analysis, formulation of package model: 1 year

19.3.7 Implementation Agency

Deputy Minister of Health is the main implementation body at the Republican level. The director of Oblast Health Department and the head of Rayon Health Office are Oblast and Rayon level counterpart. Recipient RCH is an actual implementation agency.

19.3.8 Project Components and Activities

(1) Components and Activities for Stage-wise Programs

Step 1 : Formulation of pilot model program and detailed action plan for the Rayon level medical services system

a. Implementation of feasibility study on the strengthening of medical services system in the model Rayon, and formulation of improvement programs and action plans for the pilot study areas.

Step 2 : Establishment of management system for PHC Services in Model Rayons

a. Improvement of model Central Rayon Hospital (CRH) by provision of equipment and expert
b. Strengthening of medial services capability in model CRHs
c. Establishment of PHC services system centered on CRH (in cooperation with SVP)
d. Strengthening of coordination and cooperation with higher referral facilities such as Oblast general hospital, specialized hospitals/dispensaries

e. Establishment of system for preventive medicine, early diagnosis and early treatment in model Rayons

Step 3 : Formulation of package model for expansion to nationwide level through the above programs implementation and monitoring results

Step 4 : Expansion of the package model to other Rayons (recommendation of another project)

(3) Inputs of the Program

1) Donor Side

- Implementation of the feasibility study on the strengthening of medical services system in the model Rayon and formulation of improvement programs and action plans
- Provision of medical equipment for the model Rayons' CRHs
- Provision of equipment for hospital management, health financing, preventive medicine, health education, and medical information
- Technical assistance of hospital management, health financing/insurance, quality control, medical information, operation and maintenance of equipment
- Abroad Training for hospital management, financing management

2) Uzbekistan Side

- Appointment of Counterparts
- Arrangement of the Office Space
- Tax exemption for equipment and material procurement for the project implementation
- Organizing the steering and technical committee for the Project

19.3.9 Project Management Issues

- For the project success, collaboration and coordination among Ministries, Oblasts, Rayons and CRHs should be emphasized.
- This project will organize the steering and technical committee that will design, monitor and analyze programs, establish standards and guidelines, and formulate the model package.
- Several donors and international agencies are implementing and/or planning the PHC improvement programs such as Health I & II projects by the World Bank, MCH program by ADB, and DOTS program.

19.3.10 Other Development Options

The project aims that the input of the minimum cost will bring about the maximum medical

treatment. Accordingly, the system of essential drug will be introduced at every SVP, because in rural areas, inconvenient location of drug stores bears severely on the patients. This program will also involve the drug revolving fund system at community level. Also, in this project, it fosters volunteer health worker in Mahalla from the viewpoint of the preventive medicine, and it entrusts the feature of the premium collection to Mahalla.

The outline of the project is shown below;

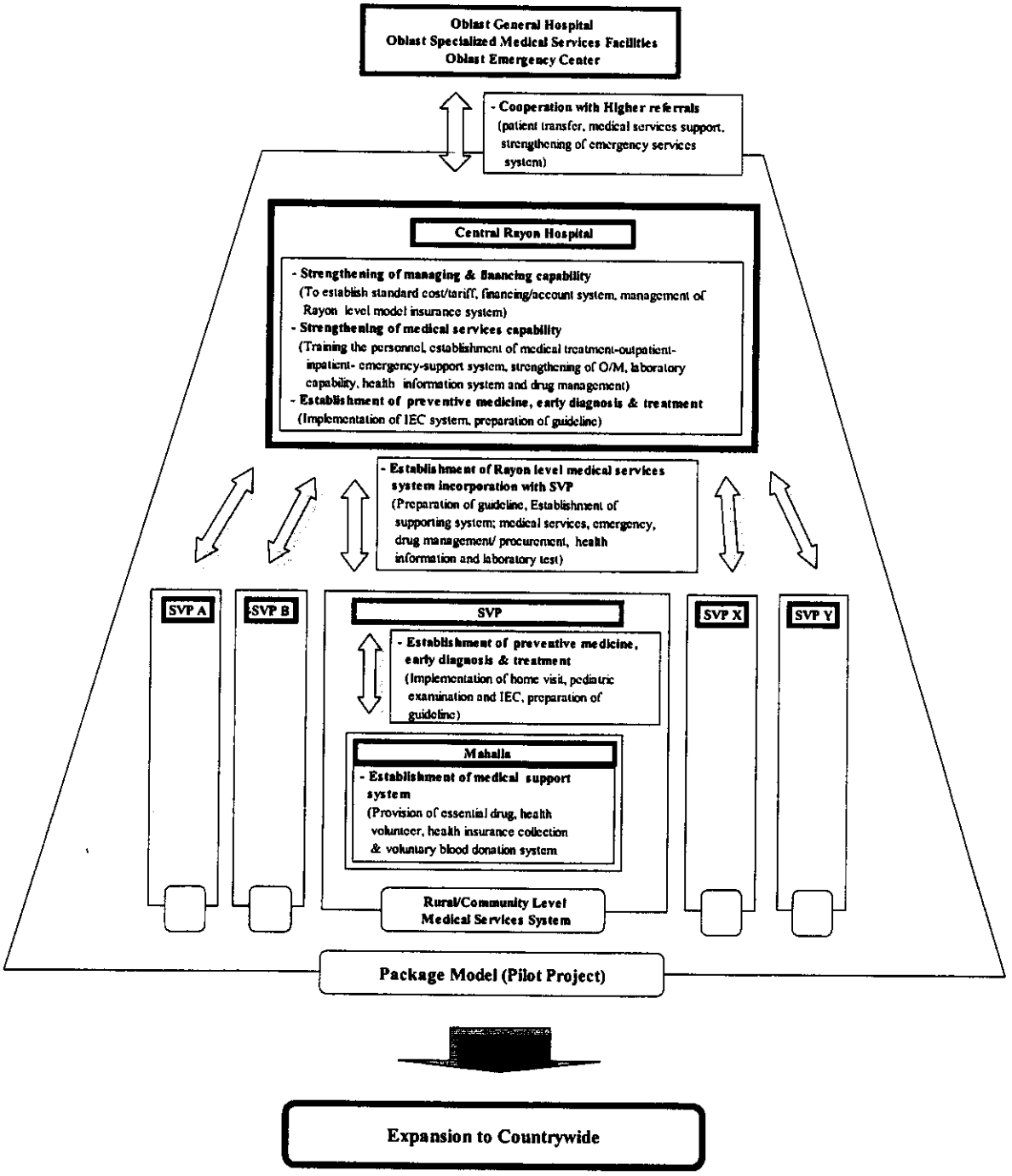

Figure S-12 Project Image Chart for Rayon Level Medical Services System

19.4 Improvement of Oblast Medical Services System and Oblast General Hospital

19.4.1 Background and Rationale

Although top referral medical facilities and specialized institutes are located in Tashkent city, it is still very difficult to transfer the patients from Oblast to Tashkent city. Therefore, strengthening the medical services system at Oblast level is an urgent issue.

Medical services system of former Soviet Union period still remains, existing medical services system at Oblast level are; several specialized medical services facilities, Oblast General Hospital, and emergency medical services center. Also, medical facilities are large in scale and each medical department is located in separate building. This system gives rise to many problems. Therefore, Oblast General Hospital will have a centralized laboratory; specialized medical facilities are to be consolidated and merged with the Oblast General Hospital. This strategy aims at improving the efficiency of hospital management and quality of medical services so that both hospitals and patients benefit from it. The Oblast General Hospital, which is a top referral facility at Oblast level, has a role of supervising, training and supporting of medical services for the lower referral facilities. Therefore, it is important to strengthen the Oblast General Hospital for the improvement of the medical services in Oblast as a whole.

19.4.2 Overall Goal

To establish the strengthened and effective Oblast medical services system for the improvement of health situation in Oblast, through the improvement of the Oblast General Hospital.

19.4.3 Objectives

To establish overall program for the Oblast medical services model at Oblast General Hospital. Results and know-how will be expanded to the nationwide level. The centralized and consolidated management hospital system common in the western countries are applied.

19.4.4 Project Location

Selection from the areas where the Baseline survey was implemented;

19.4.5 Target Beneficiaries

Target beneficiaries are inhabitants living in the project Oblast and medical personnel in Oblast General Hospital. Also, the target beneficiaries will be expanded nationwide.

19.4.6 Project Duration

Three and half years from 2004 to 2008 (3.5 years).

a. Study and formulation of program: 6 months
b. Detailed design and preparation of tender document: 4 months,
c. Tender: 2 months
d. Construction and procurement/installation of equipment: 1 year
e. Training, monitoring, analysis and formulation of standard package model: 1.5 years

19.4.7 Implementation Agency

The implementation committee organized under the Deputy Minister of Health. The director of Oblast Health Department is Oblast level counterpart. Recipient Oblast General Hospital is an actual implementation agency. Moreover, implementing unit for the project will be organized with representatives of related medical facilities.

19.4.8 Project Components and Activities

(1) Stage-wise Programs

Step 1 : Formulation of pilot model program, detailed action plan and design for the Oblast medical services system and Oblast General Hospital

a. Implementation of feasibility study on the centralization and consolidation of medical services system in the model Oblast and Oblast General Hospital, and formulation of improvement programs and action plans for the pilot study areas.

Step 2 : Establishment of hospital management system and medical services system at the model Oblast General Hospital

a. Integration and improvement of hospital functions (layout of facility, movement line of patients and staff in hospital)
b. Centralization /consolidation of laboratory function (diagnostic/functional examinations), which are currently dispersed at each specialized medical facility, Oblast general hospital and at other facilities.
c. Integration and rationalization of blood transfusion system at Oblast level
d. Consolidation of Oblast General Hospital and other specialized medical facilities
e. Consolidation of above Oblast General Hospital and Emergency Center
f. Establishment of the medical services supporting system for Oblast as a whole
g. Construction or renovation of hospital facilities and procurement of equipment, for centralization and consolidation of medical services system

Step 3: Formulation of package model for expansion to national level through the above program implementation and monitoring results

Step 4: Expansion of model hospital/system to other Oblasts (recommendation of another project)

(2) Inputs of the Program

1) Donor Side

- Implementation of feasibility study on the strengthening of medical service system in model Oblast and formulation of improvement programs and action plans
- Technical assistance of hospital management, health financing/insurance, quality control, medical information, drug control, blood transfusion, and operation and maintenance of equipment and so on
- Establishment of integrated laboratory and diagnostic examination center
- Establishment of consolidated central Oblast General Hospital
- Provision of medical equipment and construction and/or renovation of facility
- Training for the medical staff (including overseas training)
- Training for the hospital management and administration staff (including overseas training)
- Training for the staff of laboratory tests and diagnostic examinations (including overseas training)

2) Uzbekistan Side

- Appointment of Counterparts
- Arrangement of the Office Space
- Tax exemption of equipment and material procurement necessary for the project implementation
- Organization of the steering, technical and coordination committee for the Project

The image of the proposed centralization and consolidation of Oblast General Hospital function is shown below;

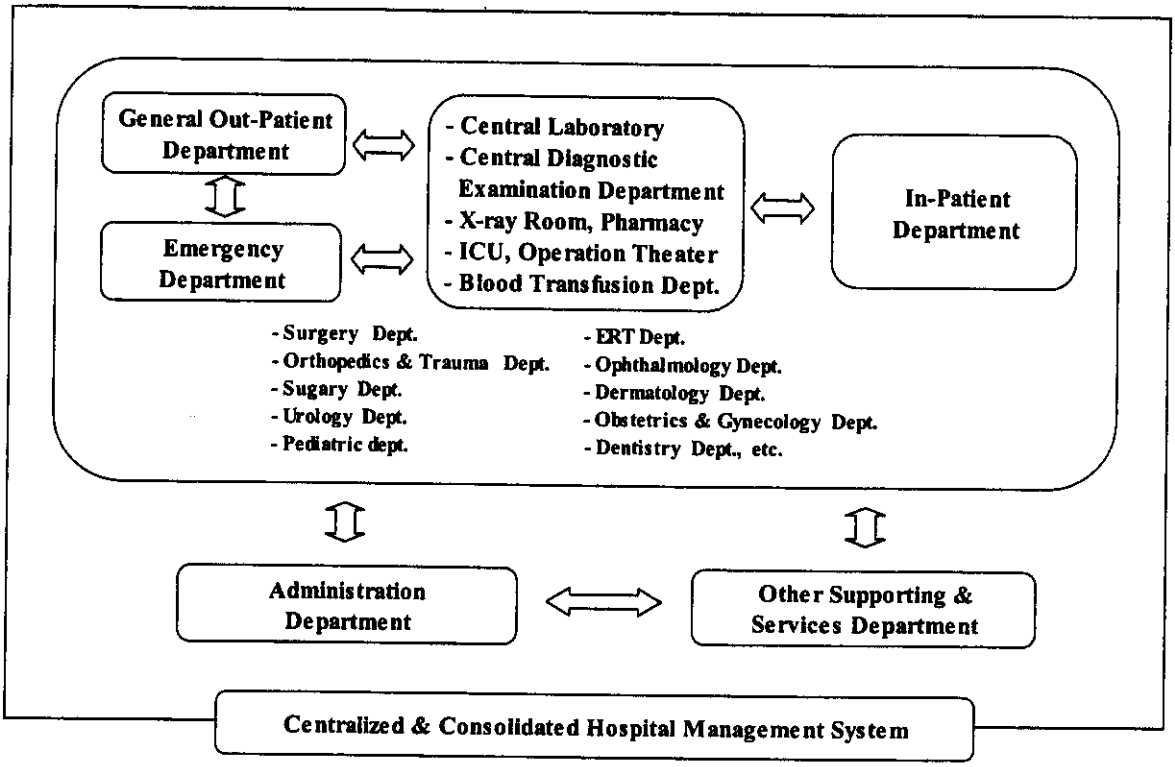

Figure S-13 Project Image of Proposed Oblast General Hospital Structure

19.4.9 Project Management Issues

- For the success of the project, collaboration and coordination among Ministry of Health, medical facilities in the Rayon and Oblast will be expected..
- This project will organize the steering and technical committee for designing programs, monitoring, analyzing, establishing the standards and guidelines, and formulating the model package.
- Coordination committee will be organized involving representative of Oblast health department, Oblast General Hospital, specialized medical facilities, Oblast emergency center and CRHs.

19.4.10 Other Development Issues

The purpose of this project containing a pilot study is to establish a model for consolidated and centralized medical services system, in order to strengthen all of the Oblast medical services system, in which the Oblast General Hospital is designated to play a central role. Therefore, this system is expected to be expanded to other Oblast. The effective and qualified medical services are the main concept of the health care reform in Uzbekistan including cost effectiveness. This project aims at achieving the establishment of the appropriate model Oblast medical services system. Therefore, the M/P recommends the implementation of "Step 4 Project" following this Project.

19.5 Establishment of Health Management Information System

19.5.1 Background and Project Rationale

Health Management Information System (HMIS) in Uzbekistan suffer from some deficiencies like manual system with aggregated data, lack of quality auditing, and absence of performance indicator system and feedback mechanism. Organizationally sufficient numbers of qualified personnel are available at each level, but the support, training and tools available to them are very limited. As a result, in the core functional areas of health systems management like personnel, equipment, drugs management, program monitoring may not be effective. Government of Uzbekistan has taken note of these issues and has started the development of HMIS with the help of donors.

19.5.2 Project Goal

To increase the ability of the health administrators to plan, monitor and take corrective action in the management of health care services.

19.5.3 Objectives

Making available timely, updated and interrelated information on all aspects of health and family welfare services delivery to all levels of health management.

19.5.4 Project Location

1. RIAC (Republican Information and Analytical Center), TASHKENT
2. OHSB (Oblast Health Statistics Bureau)
3. ROMU (Central Rayon Hospital, Organizational And Methods Unit)
4. SVP

19.5.5 Target Beneficiaries

Beneficiaries:

Program managers and policy makers at all levels in the Ministry of Health at Tashkent, Oblasts and Rayons (Staff of RIAC, Tashkent, Staff of Oblast health statistics bureau and Staff of Rayon organisation and methods unit)

19.5.6 Project Duration

Four years and in the 5^{th} year the review of the implementation is to be conducted

19.5.7 Implementation Agency

The director of RIAC, Tashkent is the main counterpart at the republican level. The director of Oblast Health Statistics Bureau and the head of Rayon Organizational and Methods Unit are the counterparts at Oblast and Rayon level.

19.5.8 Expected Benefits/Outcomes

- Streamlined HMIS at all levels, that means the availability of data for decision making to the health staff at all levels.
- Reduced workload of staff of RIAC, Oblast and Rayon related department.
- Improved quality of data in terms of timing and dependability
- Availability of DISAGGREGATED DATA of Rayon and levels below for health planning and detailed monitoring.
- Increased interactions with the ZAGS system, Sanitary and Epidemiology system for data sharing and comprehensive health planning.

19.5.9 Project Activities

(1) Framework of the Proposed Strategy

- It will be a simple but most feasible one.
- It will work for slow and sustained improvements over a period of time - say in a five years' time frame.
- It aims to inculcate a sense of data culture and rationality in decision-making.
- It aims to utilize the existing investments in computers and personnel.
- It aims to reduce costs and ad-hocism in the management of health care services delivery

(2) HMIS Action Plan

Action plan of this project is shown in the table below ;

Table S-10 HMIS Action Plan

Activity/component	Issues
1. Simplification of registers and reports	This process may take around 2 to 3 years to get adopted in to the registration and reporting process
2. Development of feedback system	It is proposed to develop automated feedback through the MEDSTAT program
3. Developing performance indicator system	-
4. Training of the key HMIS personnel	TIPME has the technical capability but does not have the capacity to undertake large volume of training. Regional training institutes may be encouraged.
5. Equipping the oblasts and rayons with computers	It is proposed to exclude the health I and health II project Oblasts and Rayons.
6. Refinement and Installation of MEDSTAT in Oblasts and Rayons.	Some of the activities like simplification of registers and developing performance indicators can be attempted in their suitable time frame.
7. Establishing interdepartmental coordination mechanism	Coordination has to be more of data sharing through standardized protocols.
8. Review of the HMIS	-

19.5.10 Verifiable indicators

- The number of decisions based on objective data and analysis.
- Timely submission of reports, quality and reliability of the information
- Readily available data on programs and on women and child health indicators.
- Reduced time spent in maintaining the registers, submitting the reports.
- Availability of interrelated departments data with each participating department
- Regular feedback available to the levels below

19.5.11 Project Inputs

- Technical cooperation through short term consultants/experts
- HMIS training to the technical people and HMIS orientation training to the Health managers and training on software to the programmers.
- Computers at OBLAST and RAYON health statistics bureaus
- Systems development and simplification of registers, reports and feedback mechanism

19.5.12 Project Management Issues and Coordination with Other Departments – Suggestions

1) Implementation of Sequential Activities and Independent Activities
2) Computerization of Health Data
3) Consideration of Present Way of Working
4) Need to Improve Quality of Data
5) Need for Reorientation and Training

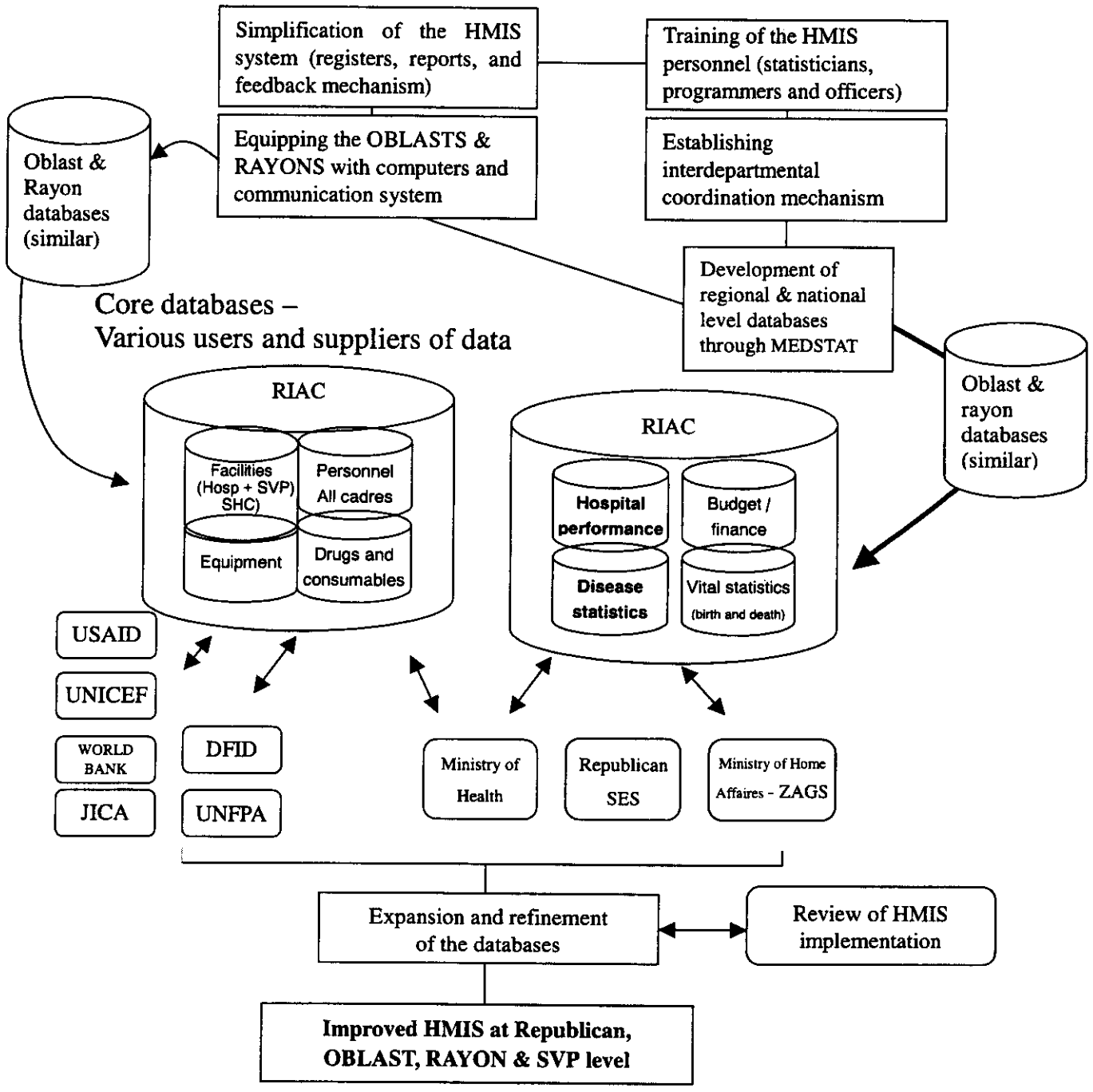

Figure S-14 Project Image Chart for the HMIS

19.6 Improvement of Blood Transfusion System

19.6.1 Background and Rationale

The problems of blood transfusion system in Uzbekistan are; the blood demand with supply cannot be fully grasped in the existing system; the blood test system and its quality are questionable; the cost for blood transfusion is unreasonable. By consolidating of the chain activities of blood transfusion (blood collection, blood test, storage, supply and appropriate use) will be carried out. As a result, it will contribute to more proper supply of safer blood and therefore more effective promotion of blood transfusion in clinical settings.

Infectious diseases by blood transfusion, especially HIV infection, need to be focused as much as possible. Since blood donors with HIV infection have been increasing dramatically since 2001, securing the safety of blood collected for blood transfusion is an urgent matter. Therefore, it is recommended that the blood donation system should be changed from familial and/or paid donors to non-familial, voluntary donors as early as possible nationwide, and the quality of blood testing for infectious diseases should be improved.

19.6.2 Overall Goal

To strengthen the capability of blood testing, to establish safe blood supply, to secure the blood self-sufficiency of supply and demand , and to obtain the cost effective blood transfusion system by introduction of the non-familial, voluntary blood donation system nation-wide.

19.6.3 Objectives

For the establishment of the country-wise blood transfusion system, to establish the overall program for Oblast level blood transfusion system through strengthening of blood test capability and institutional building of blood transfusion system.

19.6.4 Project Location

Selection from the areas where Baseline survey was implemented, and surrounding Oblasts of project area

19.6.5 Target Beneficiaries

Target beneficiaries are inhabitants living in the project areas. When design and know-how obtained through the project implementation are expanded to other areas, the target beneficiaries will be expanded to the nation level accordingly.

19.6.6 Project Duration

Three years from 2004 to 2007

a. Study and formulation of program: 6 months
b. Detailed design and preparation of tender document: 4 months,
c. Tendering: 2 months
d. Construction and procurement/installation of equipment: 1 year
e. Training, monitoring, analysis and formulation of standard package model: 1 year

19.6.7 Implementation Agency

The implementation body at the republican level will be the implementation committee under the deputy minister of Health. The director of Republican Blood Center will also be a member. The director of Oblast Health Department is the counterpart at Oblast level. Oblast level Blood Center and Oblast General Hospital are actual implementation body.

19.6.8 Project Components and Activities

(1) Stage-wise Programs

Step 1 : Formulation of and preparation of the pilot model program, detailed action plan and design for the blood transfusion system at Oblast level

a. Implementation of feasibility study on the consolidation of model blood transfusion system at Oblast level and formulation of improvement programs and action plans for the pilot study areas.

Step 2 : Establishment of model blood transfusion system at the model blood transfusion center at Oblast level.

a. Establishment of the consolidated central blood test center and integrated blood transfusion center
b. Establishment of the consolidated blood transfusion management (blood collection, blood test, storage and supply)
c. Strengthening of the central blood test laboratory
d. Promotion of the blood transfusion system by blood donation
e. Integration and rationalization of blood transfusion system at Oblast level

Step 3: Formulation of package model for expansion to national level through the above program implementation and monitoring of results

Step 4: Expansion of model system to other Oblasts (recommendation of phase II project)

(2) Inputs of the Program

For the implementation of this program, both of the donor and Uzbekistan sides will input the following:

1) Donor Side
- Implementation of feasibility study on the improvement of the blood transfusion system in model Oblast and formulation of improvement programs and action plans
- Technical assistance of the blood transfusion management, quality control of laboratory test, and operation and maintenance of equipment
- Establishment of consolidated central blood laboratory and central blood transfusion center
- Provision of equipment for blood transfusion
- Training for the blood transfusion management and administration staff (including overseas training)
- Training for the staff of blood laboratory tests (including overseas training)

2) Uzbekistan Side
- Appointment of Counterparts
- Arrangement of the Office Space
- Tax exemption of equipment and material procurement for the project implementation
- Organization of the steering, technical and coordination committee for the Project

The flow chart of the recommended blood transfusion system is shown below;

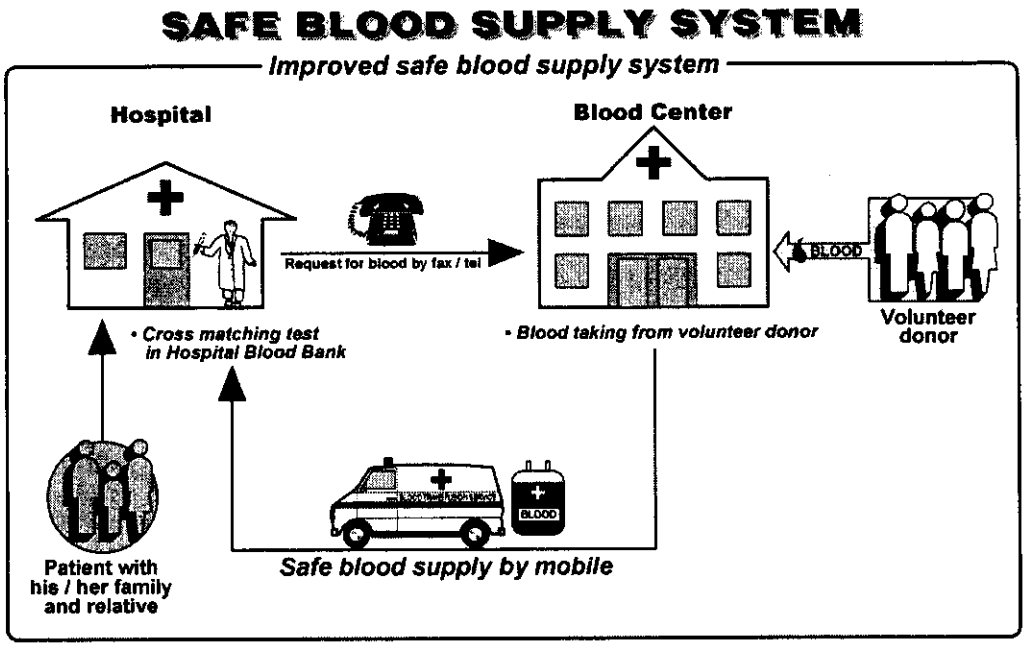

Figure S-15 Recommended Blood Transfusion System

19.6.9 Project Management Issues

- This project will directly appoint the deputy minister head of project implementation.
- For the success of the project, collaboration and coordination among Ministry, Oblast, Oblast General Hospital and Republican Blood Center are desirable.
- This project will organize the steering and technical committee for designing programs, monitoring, analyzing, establishing standards and guidelines, and formulating the model package.
- This project aims at introducing the voluntary blood transfusion system to Uzbekistan, therefore Ministry of Health should fully support the introduction of new system.
- Several donors/NGOs are implementing and planning HIV programs. ADB is plaaning to blood tranfusion program. Therefore, collaboration and partnerships with these donors and NGOs programs are desirable for the effective implementation of the proposed project.

19.6.10 Other Development Issues

The purpose of this project containing a pilot study is to establish a model for consolidation and centralization of the blood transfusion system, and to introduce voluntary blood transfusion system at Oblast level so that they will be expanded to other Oblasts. It is very important to avoid the transfusion infectious diseases in terms of securing the safety in blood transfusion. Therefore, it considers the expansion of package model during the pilot study implementation period. This M/P recommends the implementation of the Phase II Project (expansion to the countrywide) after this Project.

For the introduction of voluntary blood transfusion system, the community organization of Mahalla may be given a viable role. The enlightenment and promotion for voluntary donor blood transfusion system to the inhabitants is important activities of this project to secure the appropriate blood samples. Therefore, the project requires cooperation and collaboration between Mahalls and blood transfusion center.


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