

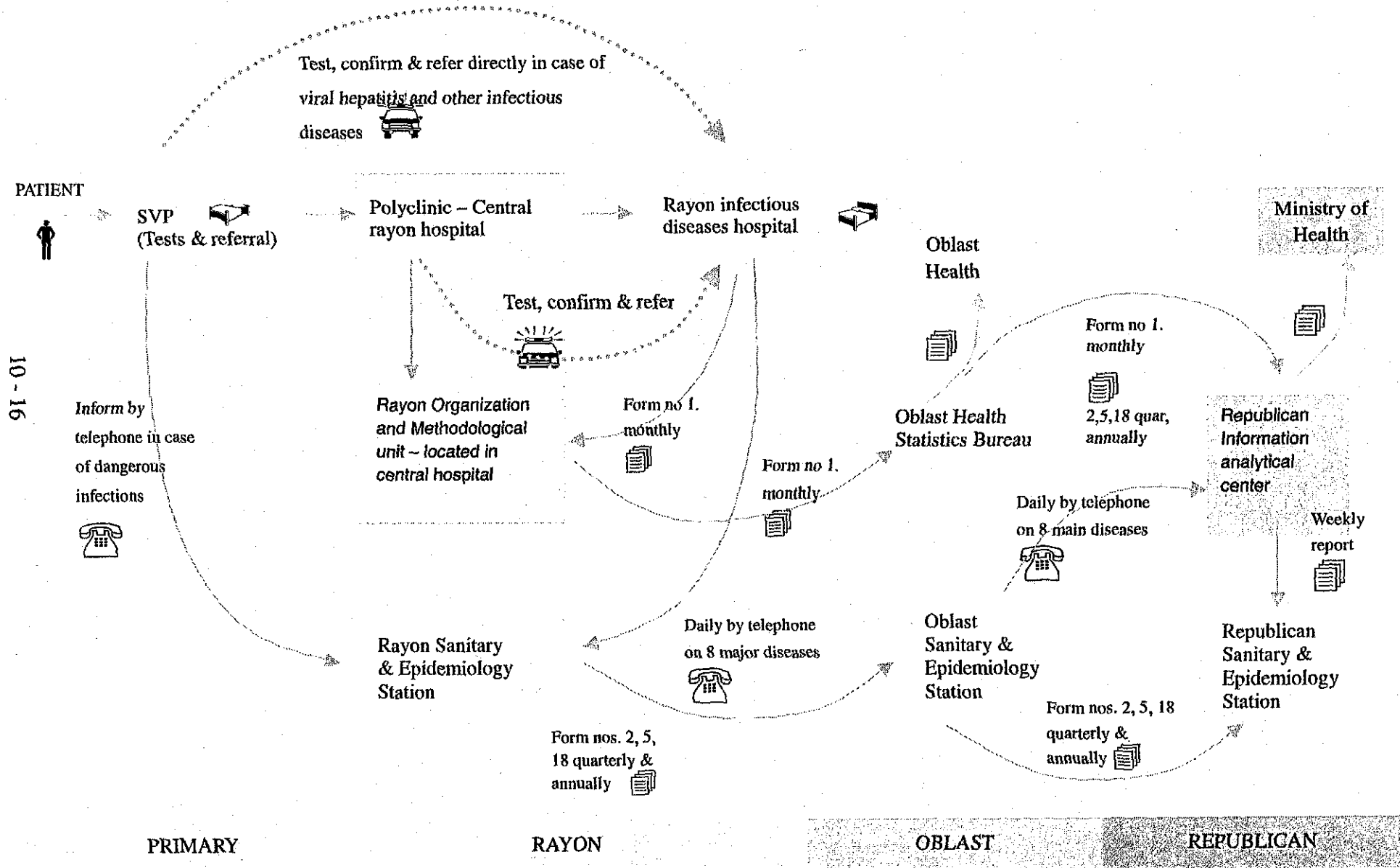
**Table 10.6 Sanitary and Epidemiology Information System**

**- Activities Capability & Issues Matrix**

Sr. no.	ITEM	RAYON LEVEL	OBLAST LEVEL	REPUBLICAN LEVEL
1	General description	Three categories of rayon-level SES: i < 30,000 pop: 6 doctors ii 30,000 – 60,000 pop: 12 doctors iii 60,000 – 100,000 pop: 24 doctors There are 182 rayon-level facilities in Uzbekistan	Two categories of oblast-level SES  i < 1 million pop. ii 1 – 3 million pop.  13 oblasts + one Karakalpakistan	1 center in Tashkent
2	Organization	Chief doctor and heads of laboratories/sections.	Chief doctor assisted by two deputies and heads of different laboratories.	Dy. minister in charge, who can take independent decisions.
3	Staff (pattern varies based on the size of the area)	1 chief doctor, 1 medical statistician and one asst. epidemiologist.	1 chief doctor and 4 to five assistants – each laboratory head prepares his/her own report.	Organization and Methods Unit.
4	General	Station is made up of different laboratories – sometimes located at a rayon hospital in a different campus.	Station is made up of different laboratories – sometimes located in different campuses, and additionally has quarantine, radiology, and virology units.	
5	Information receiving			
	Daily	SVPs directly to central rayon and infectious hospital	From Rayon SES	Information is received by RIAC from oblast SES (an old practice being continued)
	Monthly	Detailed information in several report forms.	Detailed information in several report forms.	Form nos. 1, 2, 5, 18, etc.
6	Information despatch			
	Daily	By telephone to oblast SES	By telephone to RIAC	
	Monthly	Form nos. 1, 2, 5, 18, etc.	Form nos. 1, 2, 5, 18, etc.	

7	Value addition	Compilation of reports	Consolidation of reports. Some of the oblasts like Sirdario use graphical formats for presentation. Rayon-wise data from the year 1990 is available for analysis.	
8	Activity	Close coordination with central rayon hospital and infectious diseases hospital.	Usually control rooms are set up during seasons when outbreaks of infectious diseases are likely.	Sends specialists when there are outbreaks, which are very few these days.
9	Capability to attend to infectious diseases	Can receive information very fast, within hours of any outbreak, and is in close touch with SVPs and polyclinics.	Can receive information usually in one day in case of dangerous infections.	Can receive information in one day in case of dangerous infections.
10	Computers	There are 1 or 2 computers, mostly used for typing.	There are 4 to 6 computers; some of the oblasts use statistical analysis software developed in FoxPro database system, others use spreadsheets of all types. Some doctors have good computer knowledge.	Several computers and users have good computer knowledge.
11	Issues with computers	Lack of application software. Non-standard applications are being used.	Application software is very old and supports only limited analysis. Again, not all oblasts are using this software.	There is no applications software. Non-standardized spreadsheets are developed and being used.
12	Mapping	No geographical maps in the places visited.	Wall painted maps in the chief doctor's room.	Only some general maps; no detailed maps.
13	Data management	All manual records SVP level-data is available.	Stored in different formats; files and rayon-level aggregates are available.	Exhaustive information in aggregates, but no national-level database with details for rayons is available.
14	Future plans	Uniform software development and installation for data entry.	Uniform software development and installation for data entry and consolidation. Linking up to republican SES through dial-up or through internet.	Databases development and consolidation; online links with oblast SES for data receiving and sending;- networking plans with the help of UNICEF.

**Figure 10.4 Infectious Diseases Reporting System**



## **10.6 Present System of Reporting Births, Deaths and Marriages in Uzbekistan (ZAGS)**

Uzbekistan has a well-established system of recording births, deaths and marriages through community-level and rayon-level organizations. The ZAGS system, which handles birth, death and marriage registration, is part of the Ministry of Justice, with offices from rayon level.

A birth certificate is mandatory and is issued through a simple process. On a birth/delivery taking place in a maternity hospital (or a ward of the central rayon hospital) the hospital issues a pre-certificate, with which a parent can register the child's birth at either the rayon ZAGS or at the Kishlak office on a payment of 228 sums. In case of delivery at home, the respective area SVP issues the delivery certificate/note.

The Rayon ZAGS office is usually a small one, with one head and two or three inspectors. They handle the entire registration process manually. They have to maintain the manual ledgers and original counterfoils of the birth certificates for a period of 75 years. Usually, around 30% of the total births are registered directly in the rayon ZAGS office.

Similarly, the ZAGS office also registers the marriages and charges a fee of 998 sums; this certificate is necessary at the time of registration of birth.

The Kishlak council usually has one secretary who handles the registration of births and he/she? forwards the monthly summaries to the central rayon hospital organization and methodological unit (ROMU).

ROMU gets the information regarding the birth from the central rayon hospital, as well as from the Kishlak's and ZAGS' offices. They compare the statistics and eliminate duplicate reporting. Usually, they get the details of every birth. To this extent, there is a comparison of the birth data to filter duplicate reporting.

After the mother and child return to the respective Kishlak, the respective SVP doctor visits the mother and child and gets the data entered in the SVP population register.

Again the Rayon ZAGS office and ROMU forward the summarizes the latest data related to

new births and dispatches the information to their respective oblast-level offices, which, in turn, will forward it to their republican-level facilities.

1) Passport system

There is also a passport system, starting from the rayon level to the republican level. Every adult of 16 years of age needs to obtain the passport from the Ministry of Internal Affairs, whose branches are located in every rayon and oblast. This passport is mandatory for employment, marriage, travel to other oblasts and host of other services from the private and public sectors. This passport is renewed when the individual reaches the age of 25 and then again at 45. This system monitors the migration of population between different oblasts. The data is largely entered manually and is not quite correlated with the data generated by the ZAGS system.

2) Death registration

A medical death certificate is issued by the health facility where the death has taken place, or the respective SVP in case it has taken place at home, on the basis of which the death certificate is issued either by the ZAGS system at the rayon or the Kishlak council. These certificates are necessary to bury the deceased.

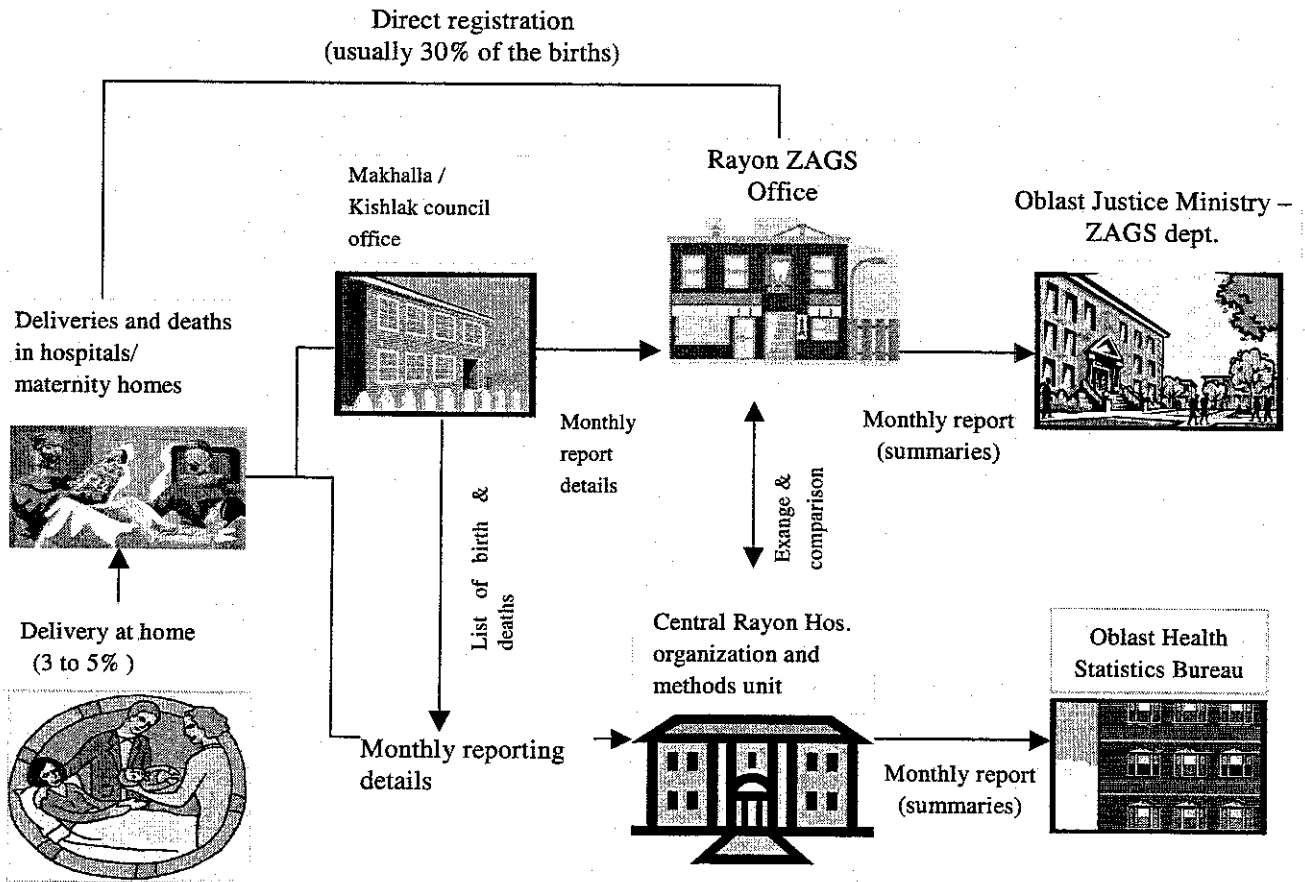
It can be assumed that through these mandatory requirements/processes, all the births, deaths and marriages in Uzbekistan are registered.

In this way, there are two sets of demography data maintained, one by the health system through the primary care units, the other by the ZAGS system.

3) Issues related to the birth and death registration system

- a) Very efficient system with almost 100% registration.
- b) Compared to other statistical systems, a compact staff mans the offices.
- c) There is some kind of cross verification of the ZAGS data with the health statistical systems.
- d) It is entirely a manual system with lot of paper work. Though the oblast ZAGS have computers, they are mostly used for typing.
- e) Zdrav Plus and World Bank projects have created the population database in Ferghana and in some experimental rayons of Sirdoriya and Navoi oblasts. (A detailed description of the Zdrav Plus project population database is provided in

Appendix 10.4).



**Figure 10.5 Present System of Reporting Births, Deaths and Marriages**

**Table 10.7 Matrix of Health Information Activities of Various Agencies and Projects in Uzbekistan**

Name of the agency/project	Description of the main activity	HMIS description	HIS area	Resources	Future plans
Zdrav Plusproject (Supported by USAID)	Primary care quality and efficiency development through capacity building, decentralization	1. Developed and utilizing the computerized population database for 800,000 population in Ferghana 2. Developed and tested the clinical information system in controlled Rayons 3. Developed a financial management system for budgeting and accounting at the SVP level	Ferghana oblast and controlled Rayons	HIS department in Tashkent with 3 specialists, 1 ME specialist in Ferghana, software programmers	Expand to entire Uzbekistan in cooperation with the World Bank Health Project 2 (proposed)
World Bank-supported Health project (1)	Primary health care infrastructure development and capacity building	Established a population database in NAVOI and Syrdarya oblasts with the Zdrav Plus project's technical assistance.	NAVOI and Syrdarya	One full-time coordinator in Tashkent project office and some regional-level computer programmers	Propose to utilize the systems developed by the Zdrav Plus project and extend (what?) to entire Uzbekistan.
WHO	Health personnel training, infectious disease control, HIS, drug management	Developed the national health data presentation system for the entire European region. This software can do the statistical analysis at the oblast level and has a large set of indicators for analysis and simple mapping.	National level	The European office has extensive expertise in HIS.	Proposes to develop a unified and comprehensive health database for Uzbekistan in coordination with donors and other projects.
UNICEF	IMCI /save motherhood, HIV/AIDS, equipment and drug supply and training	Immunization information, children infectious diseases information	National level	Collaboration in place with the SES system; supplied the hardware to the SES at the republican and oblast levels	Plans to link up the republican SES with the oblast SES and custom develop a software, so that data can be automatically entered, transferred and consolidated at the republican level.

ADB	Propose to develop a woman and child health project (then should be part of future plans)	Likely to have components similar to WB supported health project 1 and HIS plan	To be identified	Feasibility study through a consultant	Propose to support World Bank health project 2, with more focus on MCH indicators
TACIS PROJECT (EURO AID)	Second health project to commence activities from early 2004	Development of information system only in the project regions as they are considered to be underdeveloped	Kashketedia region and Karakalpakistan	Feasibility study through external consultant, but will built up the local capacity	Plans to develop the information system through the Institute of Health and not through the regular RIAC system



## 10.7 Zdrav Plus Project Summary

(A detailed description of the project and its present status is presented in Appendix 10.4)

- 1) The project has been focusing on HIS and clinical information systems for the last 4 years.
- 2) It has a strong team of four members (including doctors and computer specialists) at the Tashkent office.
- 3) It has commissioned several studies (internal and external) on the government routine HIS and Zdrav Plus project information systems, strategies, progress evaluations, etc.
- 4) The project has invested extensively in consultancies, pilot software development, and supervision of the pilot's implementation.
- 5) At this point of time, reforming the routine health information of the country is not its work and objective.
- 6) Developed a simple population database and has populated the database in Ferghana oblast and some Rayons of Syrdarya and Navoi oblasts with the help of the World Bank supported project.
- 7) The population database has been mainly used for per capita calculations of the SVPs' financing plan.
- 8) Developed models for clinical information systems and pilot implemented it in a few polyclinics.
- 9) Developed a software for SVPs that can do financial planning and accounting of the expenditure.
- 10) Developed capacity on HMIS systems in the project area.
- 11) No mapping tools have been employed for the plotting of health facilities or indicators or events in its control Rayons.
- 12) Orally updated the RIAC and oblast Health Statistical Bureaus, but have not exchanged documents, study reports and software with them.
- 13) Finally, there is an overwhelming project approach (what does it mean?) in the entire operation of the Zdrav Plus project.
- 14) The health facilities staffs in the project area are yet to benefit from the interventions of the Zdrav Plus project in terms of simplification of reporting, and time reduction on routine reporting and planning. Rather, they are supporting the reporting requirements of a dual system.

## 10.8 Notes on the State of Computerization in the Department of Health

- 1) RIAC is sufficiently computerized for centralized data entry. Lately, they have a comprehensive application - MEDSTAT (more details have been provided in Appendix 10.1) - which facilitates data entry of all forms and reports, and consolidation and analysis, etc. They are yet to install it in the oblasts.
- 2) The Ministry of Statistics Committee employees computers and has a proprietary software for data entry of some columns of information from the health statistics reports.
- 3) The Zdrav Plus project has compiled some experimental population, clinical and financial databases in their project areas. The population database is being used for per capita calculation. The financial and clinical software are only installed in some experimental SVPs. The financial software is ready for wider installation.
- 4) Though most of the oblasts are equipped with computers, usage is limited to spreadsheets, old FoxPro applications for data entry and printing the report. There are no uniform software or data standards and transfer processes.
- 5) Some Rayons have got computers but they are used more as typewriters
- 6) Except for the experimental Rayons, there are no computers at the SVP level. Most of the rayon hospitals have got computers, which are being put to various miscellaneous uses.

## 10.9 Comments on the Routine Government HIS General

- 1) The HIS has been designed by the Institute of General and Social Hygiene (after Semashko) in Moscow.
- 2) It is heavily oriented toward centralized planning and management of the health care system.
- 3) Almost every health-related event is recorded in registers and reported.
- 4) The number of registers to be maintained at the health unit level or very many.
- 5) They have extensive staff for reporting/processing and transmitting health information. Most of the those handling statistics at the republican, oblast and rayon levels have long years of service in the particular departments.
- 6) **Ruled books** serve as registers, and several reports are submitted as hand drawn reports.
- 7) At all levels, several departments and agencies handle health and census information.

They usually **exchange information** and also transmit to their own hierarchies.

### 10.10 Issues

- 1) The HIS is one based on **aggregation**. Every level reports only the summaries to the higher levels, and, finally, only the oblast statistics (except for cadre information) reaches the RIAC at Tashkent. The oblasts, in turn, process and analyze the summaries of the Rayons. The disadvantage with aggregates is that the individual institution's performance, or lack of it, is concealed in the aggregates/summaries of the whole region.
- 2) The system of information flow usually follows the system of organization organizational structure? This way there are **several vertical flows of information**, like epidemiology, specialized hospitals demography and routine statistics, etc. There is a system of information exchange, but there is no practice of reconciling the data.
- 3) At the oblast and rayon levels, computer support is not available in terms of **dedicated software** for data entry, consolidation and analysis (health project oblasts have computers for population database and others).
- 4) Though oral **feedback** is given at the monthly medical meetings, formal feedback reporting systems do not exist.
- 5) SVPs maintain a detailed **population database** for their catchment area, and use it for planning and preventive activities. But this data is not usually reconciled with the local Makhalla system.
- 6) **Data quality auditing** is done by the rayon and oblast-level health statisticians through periodical visits to the health facilities. They are supposed to check and tally the original registers and also the patient discharge forms like 066/u with the reported statistics. But, in practice, due to inadequate support facilities like transport and several others factors, extensive audit visits are not undertaken.
- 7) **Various donor agencies** work in their experimental oblasts and Rayons with their own interventions. To facilitate their project management they have added several reporting forms to the already detailed information system. This increases the volume and workload of the staff at the periphery. Many a time, the staff do not have commensurate support to handle the additional work.
- 8) Though a system of extensive reporting exists, **performance indicators** are not included. Efforts are on to develop a system which includes performance

indicators.

Table 10.8 presents a syncopated version of the above discussion.

**Table 10.8 HMIS life Cycle and Issues**

Stage	The present process or flow of HIS	Issues and Comments
GENERATION OF DATA	Primary health facilities, referral facilities – the chief nurse at the SVP is in-charge	Extensive system of documentation and reporting. At the primary level, doctors have to attend to 5 patients an hour; and 2 if it is a home visit. Every item of clinical and statistical information has to be entered in various registers and ledgers.
ANALYSIS OF DATA	SVP chief doctor, rayon, oblast and republican officers	As the information available at the higher levels is in terms of aggregates, only limited analysis can be undertaken. Usually, the respective statistical bureaus do the tabular analysis.
FLOW OF DATA	Monthly, quarterly and yearly: usually hand delivered	Usually, the deadline for reports is adhered to. Again it is only a one-way flow, and the information continues to travel upward. Since the computers are not yet employed/utilized at the oblast and rayon levels, reports are sent by a courier.
PRESENTATION OF DATA	At the review meetings	Only tabular formats are used. At the republican level, graphical aids are utilized. But, at the oblast and rayon levels, graphical and analytical methods are not used. Mapping tools like rayon and oblast maps are also not employed. Descriptive progress reports are not available and usually one has to go through the volumes of tabular data to garner relevant information.
QUALITY CONTROL	Different control reports, data auditing by rayon and oblast statistical units	There is a system of data quality auditing by the rayon and oblast statistical units through field visits and cross checking the reports with control forms like 066/u which is filled after every patient visit by the facilities. But due to the budgetary constraints for field visits and time constraints for reporting etc, no serious auditing is undertaken.
USE OF DATA FOR DECISION MAKING	Program planning, monitoring, training, logistics of drugs, personnel deployment and facilities management	The excessive concentration of decision-making powers at the oblast and republican levels make data use a complicated issue. The Zdrav Plus project experimental SVPs are financially independent, and slowly data utilization is taking place. The oblast-level managers are familiar with the health data.
FEEDBACK	Minutes, meetings, memos, and oral messages.	Formal/written feedback is mostly absent at all levels. Oral feedback is communicated during the meetings of the medical staff.



**CHAPTER 11**  
**PRIMARY HEALTH CARE**



## **11. PRIMARY HEALTH CARE**

### **11.1 Primary Health Care for General Primary Medical Service**

Since independence, primary health care (PHC) has been emphasized in rural area according to the Presidential Decree. The health reform process calls for the strengthening of primary care facilities in rural area known as SVPs and rearranging emergency care network. However, because the concept of PHC is not standardized well, it is often confused with 'primary medical care', 'prophylactic care' and 'emergency care'. Therefore, this study applies historical perspective for comprehensive analyzing of PHC activities in Uzbekistan. Declaration of Alma-Ata on PHC and proposed eight basic activities for PHC in the Declaration are shown below.

#### **BOX 11.1**

##### **Declaration of Alma-Ata, in 12.9.1978**

Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

##### **Included at least;**

1. Education concerning prevailing health problems and the methods of preventing and controlling them
2. Promotion of food supply and proper nutrition
3. An adequate supply of safe water and basic sanitation
4. Maternal and child health care, including family planning
5. Immunization against the major infectious diseases
6. Prevention and control of locally endemic diseases
7. Appropriate treatment of common diseases and injuries
8. Provision of essential drugs



### **11.1.1 Organization and Management**

In the Ministry of Health, the minister has five deputies responsible for the sub sectors of the health system, such as: 1) curative and preventive care, 2) MCH and family planning, 3) medical education and science, 4) sanitation and epidemiology, and 5) new technology and medical equipment. However, there is no specific department for comprehensive management for PHC in the Ministry of Health. Department for curative and prophylactic care in the Ministry of Health controls primary medical service facilities and is the closest to the comprehensive PHC management. Health policy is based on the Presidential Decree and promulgated by the Ministry of Health to each health department in oblast. However, though each oblast has its own characteristic in health structure, many health departments can hardly plan policies reflecting individual solution.

In rural area, due to the transition of health facility restructuring, FAP (feldsher/obstetric nurse point), SVA (rural physician/therapist and pediatrics point) and SUB (rural district hospital, with 30-60 beds) still remains in the areas not covered by “Health I” Project. SVP (rural physician point) with general practitioner (GP) and nurse newly introduced as PHC facility is going to be familiar to population.

In urban area, polyclinics and pediatric polyclinics with specialists are the first medical care point as outpatient facilities. According to the health reform and establishment of GP position, polyclinic starts to introduce GPs mixing with other narrow specialists. Also, for a branch of polyclinic, GVP (city physician point) is being tried for GP position in urban community.

### **11.1.2 The Role of SVP and the current situation**

#### **(1) Scope of Service for SVP**

For comprehensive approach to community level, the role of SVP and GP require universal activities is expected to provide essential drug and equipment, and to focus on the acute demand-led interventions, health education, promotion, prevention, and treatment with diagnosis. Thus scope of services in SVP as well as basic package has been prepared since its establishment under the cooperation with World Bank “Health I” Project and “Uzbekistan Health Project” Know How Fund. Detailed scope of service for SVP is shown in Appendix Table 11.1.

## **(2) Human Resources in SVP**

According to the former educational system, staffs of SVP are mostly therapists, pediatricians, other specialists and nurses as well as re-trained General Practitioner (GP) and universal nurse focusing on establishment of family practices. GP department at the Institute of Advance Medical Education (IAME) has been established and formulated the network for training with other 6 institutes (Tashkent Medical Institute I and II, Institute of Pediatrics in Tashkent, Bukhara Medical Institute, Andijan Medical Institute and Samarkand Medical Institute) for prospective GP trainer base. Recently GP training programme itself has extended from 3 months training period to 10 months course. The number of staff is allocated according to the SVP type from 1 to 4, however new GPs seem to need more clinical experience to be independent. The details are described in the “8. Human Resource Development”.

Also “Health I” Project insists on the importance of management in SVP, so that GPs are expected to assume the administrative work, such as finance, medical reporting, maintenance of facility and equipment as well as health services.

## **(3) Facilities and Equipment in SVP**

FAP, SUB and SVA have quite poor medical equipment and limited drugs, even minimum electricity and clean water supply are insufficient. In the pilot project area, newly renovated facilities attract patients to be accessible and give them confidence in care. Appeal of SVP is to provide essential drugs to wide community population for their needs. Treatment in SVP can provide utmost primary care; its equipment performs simple operation. Thus the significance of quantity and quality of the equipment is cost-effectiveness and clear demarcation to next referral treatment. The details are described in the “7. Medical Facilities and Equipment”.

### **11.1.3 PHC Activities by SVP**

According to activities based on SVP, following actions are taken and outcomes gained in the community.

#### **(1) Health Education**

Owing to high literacy rate and freedom of religious belief, health education targeting community awareness can be spread by IEC activities through home visits, SVP and school, TV and radio campaigns. Program wise approaches, such as nutrition control,

breast-feeding and family planning focus mainly on maternal and child health care. IEC activities lack the understanding of community participant initiatives.

## **(2) Safe Water Supply and Basic Sanitation**

According to UNICEF report, around 97% of urban and 84% of rural population have an access to safe water. However, water distribution network systems are old and in disrepair, from the point of view of the quality of water, accessible water does not mean “safe drinking water” due to community behavior. There is not enough awareness on sanitation and people drink surface water without boiling. Also salinity problem in Aral Sea disaster appears in Khorezm and Karakalpakstan and deteriorating water quality is much below the state standard.

In general, 97% of urban and 85% of rural population have access to toilet. 50% of urban and 4% of rural population have public sewage system, 96% in rural population use pit type toilets. Thus, accessibility is reached by most of population but the aspect from quality of life can bear further improvements. Details are described in “15.3. Sanitation and Hygiene”.

## **(3) Food and Nutrition**

Still nutrition problem is the main threat for children and mothers. This causes poor nutrition habits or unbalanced diet. According to UNICEF and WHO reports, about 30% of children are stunting, 5% children are wasting weight and nearly 20% children are underweight and this tendency is shown in income quintile. Also about 60% of reproductive age women and 70% of children under 5 years suffer from anemia. On the point of micronutrients, goiter prevalence was over 40% and 60% of population suffer from IDD, about 40% of population of Karakalpakstan is suspected to have vitamin A deficiency.

Breast-feeding is highly recommended for infant malnutrition as one of the solutions. In Uzbekistan, there is a background for traditional breast-feeding, which makes the activity to be achieved smoothly.

As for the food itself, its quality is assured by ‘a food quality and safety act’. Generally it seems that population is concerned about the quality of food. Sanitation control is a role of SES, however the laboratory equipment in SES is insufficient as well as inspections conducted in restaurants, factories or markets are not regularly done or not established yet.

#### (4) Maternal and Child Health

MCH is considered as a highest concern among PHC actions for MOH due to high IMR and MMR. Thus, MCH will be studied in depth in the following section, “15.2. Maternal and Child Health Care”?

#### (5) Family Planning

As for family planning, the education of birth spacing, contraception methods and prophylactic examinations as well as consultations are the mainstream. The role of abortions was a method of birth control. Modern safe and effective methods of contraception is replacing the abortions. More than a half of women use modern methods of contraception and intrauterine device (IUD), which are widely adopted (UNFPA). This contraception can be obtained from hospital and pharmacy. Condom is going to be widespread, however it seems to depend on the female contraception side rather than male contraception.

**Table 11.1 Number of Abortion and Contraceptive Prevalence (1998-2000)**

	1998	1999	2000
Contraceptive Prevalence (%)	61.8	55.7	—
Total number of abortion	74,500	66,065	61,893
Number of abortion by age			
<15	15	13	9
15<19	4,929	3,950	3,316
20<34	54,783	49,555	46,668
35<	14,783	12,547	11,900
Number of deliveries (including still-born)	550,600	541,100	523,000

Source: Women and men of Uzbekistan (2002), the state statistic dept. of the ministry of macroeconomics and statistics of the republic of Uzbekistan,  
Reproductive Health Care in the Republic of Uzbekistan (2000), UNFPA

#### (6) Expanded Immunization

Vaccination coverage for children keeps quite high rate, mostly over 97% in each vaccination and this should be sustained spontaneously. Also Uzbekistan received the polio free certification. Hence, vaccination quality improvement is a current issue in Uzbekistan, such as strengthening the accurate birth registration and safe injection using disposable syringe and safe box for needle. Besides, maintenance of cold chain for safe storage is required in rural area. Following table shows the incidence of infectious diseases on EPI.

**Table 11.2 Number of Cases of Registered Diseases (2000)**

	Diphtheria	Whooping cough	Tetanus	Measles	Rubella	Poliomyelitis
Tashkent city	4	41	0	22	64	0
Andijan oblast	0	17	0	0	15	0
Bukhara oblast	0	1	0	0	34	0
Djizzakh oblast	0	1	0	5	36	0
Kashkadarya oblast	0	1	0	0	2	0
Navoi oblast	0	0	0	29	22	0
Namangan oblast	0	7	0	2	6	0
Samarkand oblast	0	2	0	2	38	0
Surkhandarya oblast	0	0	0	0	7	0
Syrdarya oblast	0	0	0	2	37	0
Tashkent oblast	0	1	0	5	97	0
Ferghana oblast	0	0	0	1	71	0
Khorezm oblast	0	0	0	0	18	0
Karakalpakstan Republic	0	0	0	1	7	0
Total	4	71	0	69	454	0

Source: Infectious diseases in the republic of Uzbekistan for 2001, RIAC

In general, malnutrition suppresses immunity, thus not only main six vaccinations but also micronutrients should be considered. However, according to UNICEF reports, there is no national data on prevalence of vitamin A deficiency.

### **(7) Control of Endemic Diseases**

Technical aspects of making observations, data recording and collecting, data processing and measuring frequencies among population should be identical in each of the fields with which epidemiologists are concerned. However, screening system is insufficient due to lack of technology, human resources and concept of health information system.

For instance, the reemergence of tuberculosis spreads as a serious threat among working age group and children. Screening is not planned for community as a periodical health check, only detected patients have sent and kept in tuberculosis hospital. Also tumor can be detected in early stages by diagnosis. According to following tables, the target age group is clear and the need of early treatment is an obvious fact.

**Table 11.3 Distribution of the Morbidity Rate in Active Form of Tuberculosis (2000)**

Age	Female (%)	Male (%)
0 < 14	14.9	12.9
15 < 17	5.0	4.2
18 < 34	42.4	43.7
35 < 64	31.9	34.5
65 <	5.8	4.7
Total	100.0 (6.6 thousands pop.)	100.0 (9.6 thousands pop.)

Source: Women and men of Uzbekistan (2002), the state statistic dept. of the ministry of macroeconomics and statistics of the republic of Uzbekistan

**Table 11.4 Distribution of the Morbidity Rate in Ontological Diseases (2000)**

Age	Female (%)	Male (%)
0 < 14	2.4	3.6
15 < 17	1.0	1.8
18 < 34	27.4	18.9
35 < 64	38.7	38.7
65 <	30.5	37.0
Total	100.0 (9.4 thousands pop.)	100.0 (8.3 thousands pop.)

Source: Women and men of Uzbekistan (2002), the state statistic dept. of the ministry of macroeconomics and statistics of the republic of Uzbekistan

### **(8) Common Diseases and Essential Drugs**

Donors support standardizing the essential drug and its supply with the reform of logistics. World Bank attempts to provide essential drug package in its pilot area and WHO insists the quality standards of essential drug. Details are brought in "9. Drug Supply Logistics".

#### **11.1.4 World Bank Project "Health I and II"**

Since project "Health I" was launched in 1998, the project has progressed for 5 years upgrading SVPs and introducing general practitioners and nurses. The project has 3 components: (1) strengthening of PHC services in rural areas, (2) Training of general practitioner (GP) and universal nurses, (3) strengthening of finance and management, targeting at rural areas having over 60 percent of population and its aim seems to be in the process of achievement. In the pilot area, such as Ferghana, Syrdarya and Navoi Oblasts, essential drugs are supplied, diagnostics in primary care is improving, the number of patients referred to rayon hospital is decreasing, health promotion to community is starting and medical GP training centers are ready to work at undergraduate level on GP programme.

“Health II” Project aims to scale-up to national programs in each of the same three components. In addition, “Health II” Project will include new public health components: (4) development of new capacity in the public health infrastructure and capacity to address infectious diseases, such as HIV/AIDS and Tuberculosis, and (5) project management, including monitoring and evaluation.

“(4) Development of new capacity in the public health infrastructure and capacity to address infectious diseases such as HIV/AIDS and Tuberculosis” plans to strengthen the structure/ framework of new public health officers and finance some equipment supplies. Furthermore, it would develop HIV/AIDS strategy such as policy development, training and health education and Directly Observed Treatment - Short Course (DOTS) program. For community level, IEC and awareness campaigns for youths (at the national and community levels, including schools) is planned to involve strategic partners (media, celebrities, religious leaders, community and business leaders). PLWHA would also be mobilized in advocacy activities to “humanize” the HIV/AIDS issue. The awareness of medical staff sustains safe health services, such as provision of disposable syringes and gloves. Institutional changes and functional integration of TB/DOTS treatment into the primary health care, introducing target vulnerable groups aims at strengthening the referral system. “(5) Project management, including monitoring and evaluation” will be developed, implemented and linked to the PRSP process and long-term focus of attainment of the millennium development goals (MDGs).

## **11.2 Community Action for Health**

### **11.2.1 Status of Community**

#### **(1) Profile of Living Standards**

According to the living standards assessment by World Bank in 2003, though health indicators, such as life expectancy, IMR, accessibility for safe water and literacy rate, have improved in last decade, income poverty remains over 25% of the population can be characterized as poor, and a third of them are extremely poor\*, On this report, it is addressed that Kashkadarya, Namangan and Karakalpakstan have more poverty rate than

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\* Food poverty line is established by estimating the cost of consumption basket that would provide 2100 cal/day. The value of the food poverty line is 3601 sums (Oct.2000). The consumption basket is based on actual consumption patterns of the poor population and is converted into sums using the prices faced by the poor population. Extreme poverty is computed based on a caloric intake of 1500 cal/day. The extreme poverty line is 2572 sums (Oct.2000).

national level, and 40% of that population is poor.

Form baseline survey in 6 oblasts by JICA Study points out the similar result, and nearly 90% of samples in Karakalpakstan have less 10,000soum/month average income, and 66% of samples in Tashkent City have over 20,000soum/month average income. Main income resources are salary, agricultural proceed and pension. Rural poverty group is heavily involved in agriculture, or their wage is very low and irregular wages. Household structure tends more family member around 4 to 6 persons or more over in rural area. Over 60% of interviewees are finished secondary education. But this doesn't help to find high wage employing. Only higher education graduates with diploma have opportunity to gain high wage occupation in the city, and the gap is going wider. 80% of households has own dwelling except Tashkent City, mostly apartment in urban area or independent house in rural area. Independent houses are made of brick or earth. Accessibility of electricity is over 95%, however power failure can happen often. Central gas system network works widely, however 20% of Karakalpakstan depend on only firewood. Except Tashkent City and Oblast, central heating system is not covered widely and using electric heater or stove.

## (2) Society

Since independence in 1992, as a part of nationalizing policy, community structure "mahalla" has been encouraged as traditional autonomy, remaining traditional mutual-aid spirit under the mahalla leader. Also mahalla has been authorized as official administrative body according to Presidential Decrees and mahalla fund, and official mahalla has around 3,000 populations gathering small traditional mahallas. Official mahalla has functions such as social security assistance, allowance payments for children under 3 years old\*, monitoring/supervision of families in bringing-up children, assistance to families of low social status (level) and allowance for old people (clothes, permits to health centers, etc) being funded those budget from "khokimiyat (city or rayon)". Allowances for funerals, childbirths, losses of breadwinners, widows are paid by the Division for Social Security. Influence of mahalla to people is quite depended on each mahalla's character, location and mahalla leader. Of course rural mahalla has more tendency of traditional and centripetal force, however female and young generation's willingness to participate mahalla, which appears male-dominated society, is not able to prospect precisely especially under new influence of westernization.

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\* The allowances for children under 3 years old are paid to mothers regardless of their employment (in this case mothers receive allowances at the place of their employment) or un-employment (in this case at home).



Due to recent approach of community action in setting priorities for health, making decisions, planning and implementing strategy, mahalla is paid attention by health promoters including donors. However, its approach must be considered on mahalla's characteristic sustainability. Elasticity of mahalla leader is important precondition, his/her (female leader can be rare in the traditional mahalla) cooperation and understanding is minimum need. If the leader dominate community playing his autocrat, it is necessary to pay attention for not loosing his power and leadership, otherwise the leader becomes a barrier and obstruction factor from his anxiety of loosing authority. General health promotions such as advocacy, environmental issue, sanitation and hygiene issue, health educational campaign are able to gain significant outcomes with strong leadership. However, sensual health topics like a sexual related issue against tradition or generation gap must be carefully promoted. From experiences of workshop in SVP with community, some tendency was appeared;

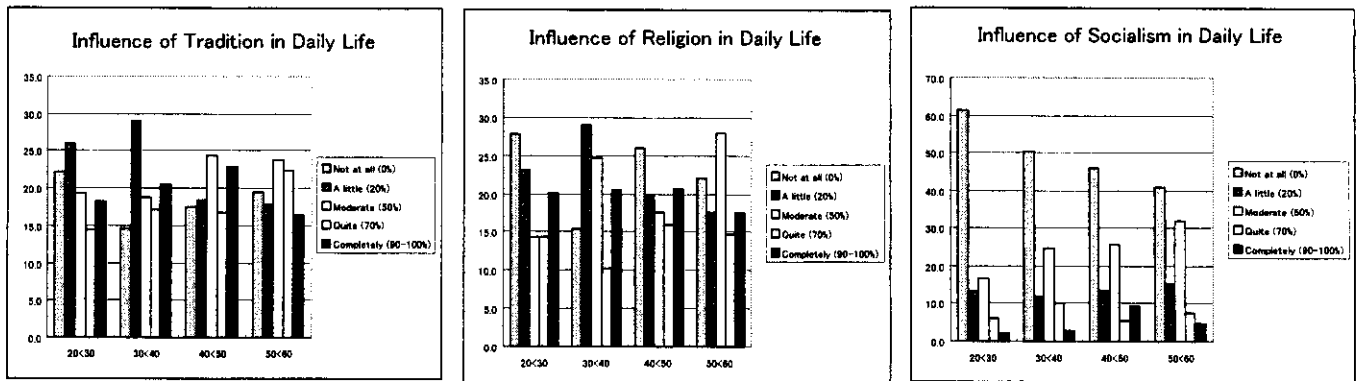
- With medical staff of SVP, community attendants hesitate to comment on minus point of health services
- With elder group, younger group attendants hesitate to comment on sexual issue
- With elder female group, younger female group attendants hesitate to comment on burden of unpaid work of house keepings, anemia risk and family planning

It is recommended that reproductive health and family planning with introduction of contraceptive use, HIV/AIDS control and STD control need focus group meeting to persuade them and be practicable the programme. From aspects of generation gap between ante-former Soviet Union era and post- former Soviet Union era, gender gap in patriarchal system. Thus, focus group should divide into male, female, and also age groups in low teenager to pre-middle age group (e.g., 15 – 35 years old) who is under pressure of family and having less experience but adaptable for new idea, middle age group around 36 – 50 years old who were born in post- former Soviet Union era and still flexible, and elder group over 50 years old who suppose to emphasize tradition and miss former system.

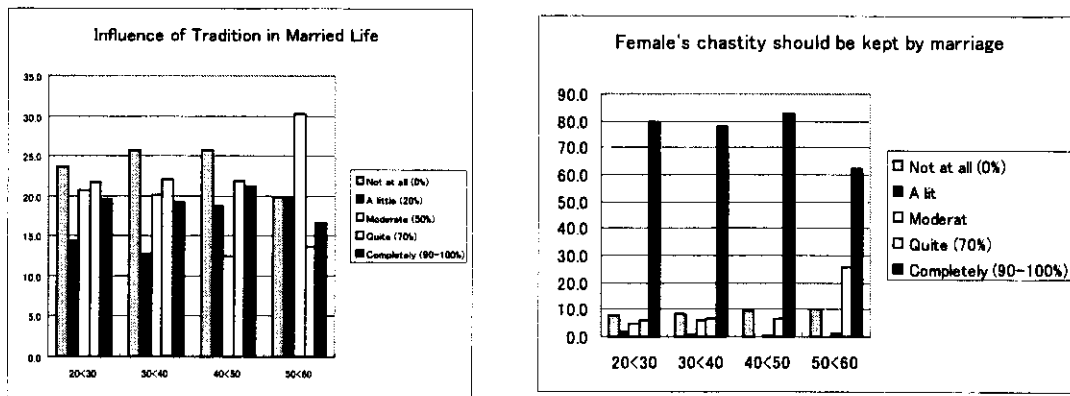
### **(3) Tradition**

Uzbek tradition can be influenced from soft Islamic and more Asiatic and agricultural context. Following graphs show the attitude of each generation from twenties to sixties in pilot 6 oblasts; Bukhara, Ferghana, Navoi, Samarkand, Tashkent and Republic of Karakalpakstan. Sample size is 461 in total. Now a day, influence of socialism has not

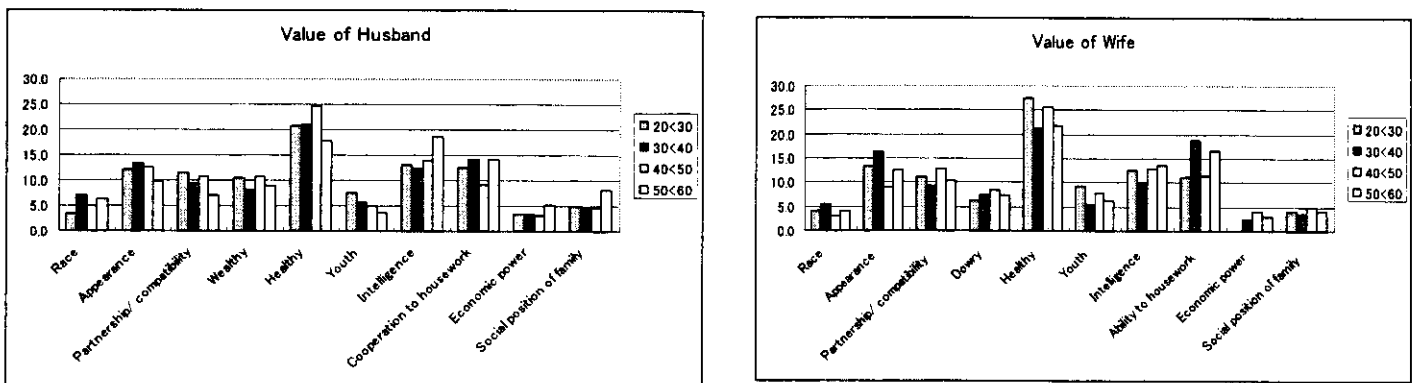
spread especially twenties who were born in 1980s and after. Oppositely other generation remains its custom as much as the generation goes up.



There is no significant influence of tradition and religion in generation, however only 20% denied no influence completely in each generation, and most of the population mentions something influence in their daily life. Being Muslim is not big issue in the married life, but tradition gives stronger impact even for younger generation to get merry or married life.



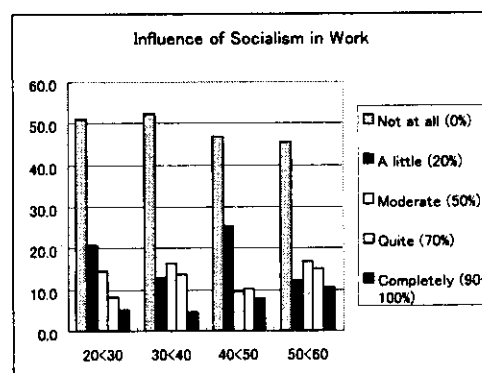
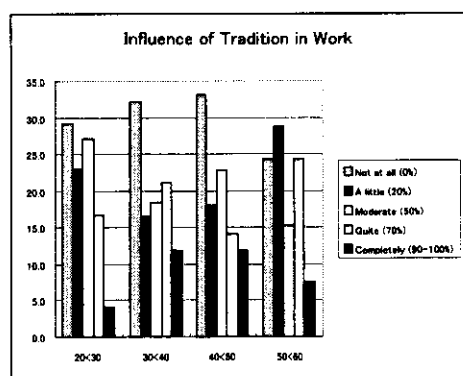
According to the selection of marriage partner, parents have responsibility for family and they seek for social homogeneity as ethnicity, religion, class and locality. It can be an ideal, however people seem to seek for healthy, ability for housework, and intelligence.



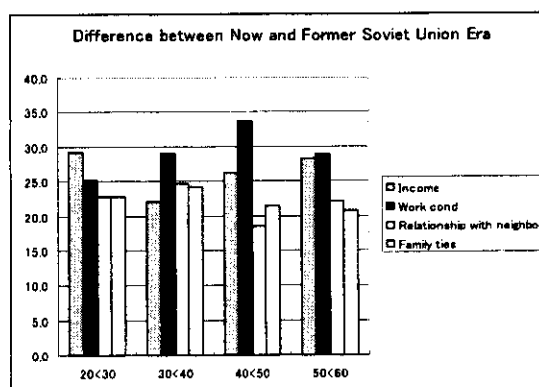
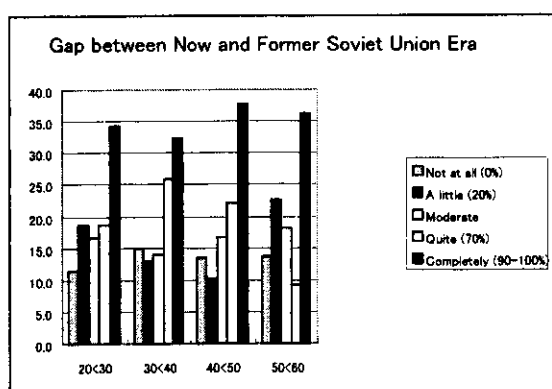
At the same time, there is a psychological pressure "what a women should be" in society.

This tendency appears as well as in sexes, generations and regions. Of course this kind of “conservative” mentality is affected by tradition and religion, and this social criteria make a strong impact for the value of women and their marriage.

Due to the socio-economical transition since independence, being in employment is a factor to live and job search is going harder than before. Now a day, most of the people do not find the influence of socialism system in work condition anymore, and tradition effects more in work. There is no detail survey for it, and such as fasting (Ramadan) can be one of example.



On the other hand, most of the population finds the difference in social change, especially in work condition. Slightly forties feel it more than other generation, and this implies that the gap of wage, high unemployment rate and introduction of competition principal in the market even in the agriculture.



#### (4) Gender

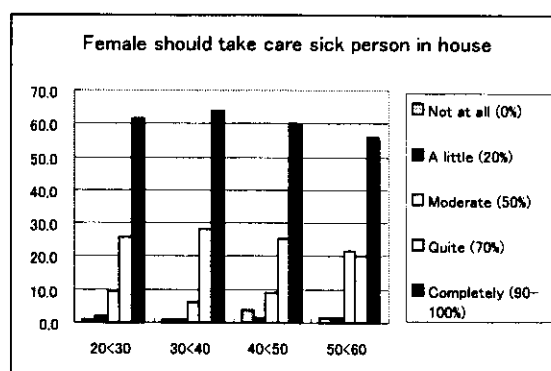
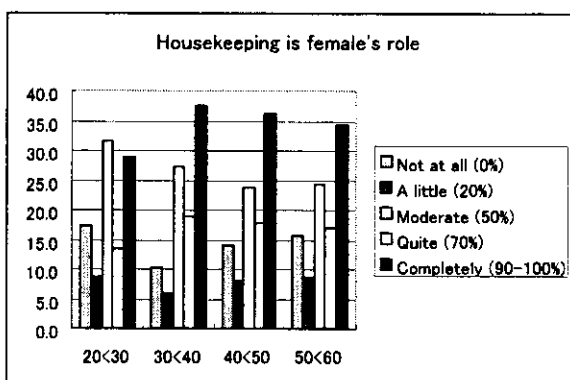
As national policy, government insists gender empowerment in public and entered the programme “Year of Family” in 1998 and “Year of Women” in 1999 to support interests and needs of women for many decisions. Education level and employment rate are not low being succeeded to socialism equity of opportunity. Economic difficulty push women into

the market, and women support income for family budget.

On the other side, Uzbek accounts for 80% of all population and Uzbek tradition is sustained mostly by women. In other words, women carry out the function of transmitting tradition to the next generation. Those cultural behavior gives impact not only economically, also for health development.

Traditionally, women play a role of family issue, such as family events, children's upbringing and housework. Three age groups of women differ from activities in traditional or religious rites. Elder group (aged over 55) are respected and give advices for ceremonies. Middle age group (aged 40's to 50's) takes a practical role for events, and younger group (aged under 40's) who are recently married prepares physical work. This tendency can see in the result of baseline survey as their mentality for work sharing.

Women themselves accept work sharing as domestic work, house keeping (including farming their land) and family care. This philosophy penetrates into young generations and able to effect negative impact to work outside permanently.

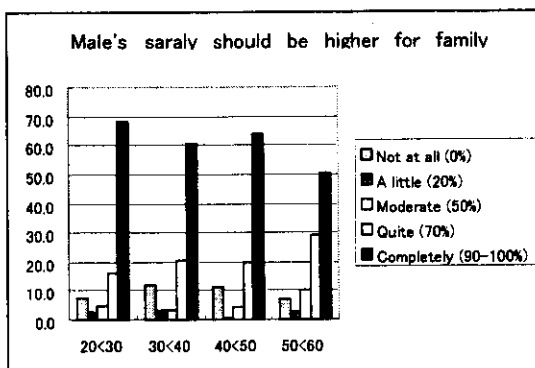
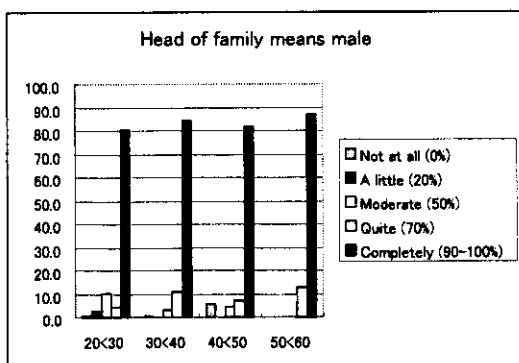


On the other hand, men are expected to be a head of household in patriarchal system. Due to expectation of work outside for men, family depends on his wage. This hampers disparity of earnings between the sexes. However, high unemployment rate and child rearing suppress opportunity to work outside constantly for women. Comparing in urban area, fertility rate is higher in rural area and this keeps women in rural at their home.

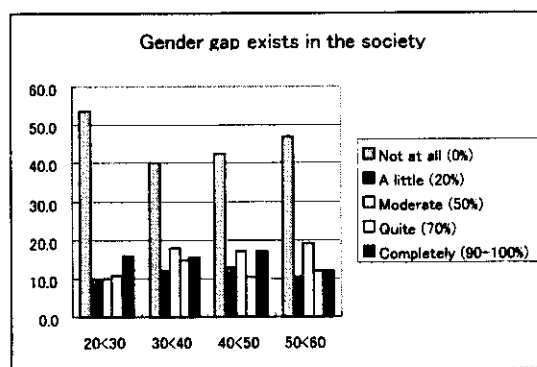
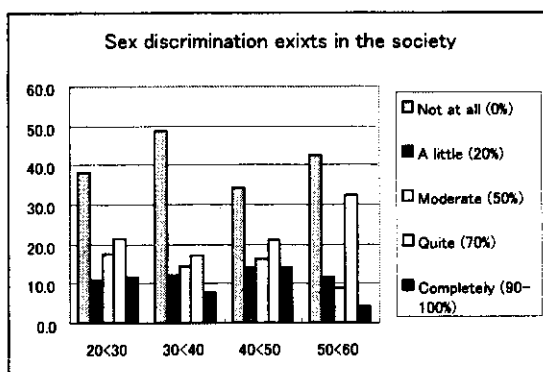
In addition, both sexes have same idea as husband's income belongs to his own performance. This implies the housework is an unpaid work and the women's status is lower in social. Research respondents give an example, 49% of women make decision with the husbands, 27% make the independent decision and 3% make a decision with other persons. 12% of respondents have declared that their husbands decide as to use money earned by wives. Independence of decision-making on use earned money emerges in Tashkent City and unmarried women.

Ability of women to influence health and unity of family partially depends on her ability to

earn money. But in fact, the salary of women is 80% of the salary of men in average, thus her contribution to the family budget and impact is less.



Equality of sexes is able to see in their mentality and social understanding. In general, people are aware of equal rights for both sexes, however, though they are exposed to it, women are not sufficiently aware of their rights, and they are reluctant to insist upon their rights, and the mechanisms of enforcement are inadequate.



In health promotion, empowerment for health may be a social, cultural, psychological or political process through which individuals and social group are able to express their needs, present concerns. In this point, role of women has a great potential to control family and society. In contrast, those women are under pressure of society with tradition, voluntary restriction and limitation of free use of money.

### (5) Health Seeking Behavior

Poor health and nutrition status reflect in access and quality of services, but also economic barriers such as low income and high cost of care, and cultural influences.

Even not poverty population can be falling into poverty level due to the substantial health expenditure of chronic illness treatment. World Bank states in their report that for households with chronically ill or disable numbers, average health care expenditures as a proportion of food expenditures were two and a half for the second and third income

quintiles. With this high costs, many poor and near poor employ counterproductive coping strategy such as depleting saving, borrowing money, selling assets, reducing daily expenses and delaying or avoiding care.

Individual lifestyles are characterized by identifiable patterns of behavior. Health behavior can be defined as promoting, protecting and maintaining for individual health status. Table 11.5 shows primary reason to visit health facilities (i.e. SVP, rayon hospital and oblast hospital) in 6 oblasts for total 461 patients. Most of the patients use health services only when they are ill, therefore their health seeking behavior weights on risk behavior targeting specific illness and diseases prevention.

**Table 11.5 Primary Reason to Visit Health Facility** (unit: %)

Why did you come here?	Bukhara	Ferghana	Karakal pakstan	Navoi	Samar kand	Tashkent	Tashkent city	Total
Illness	88.8	88.8	83.5	80.7	75.0	72.4	83.7	83.3
Health check	8.8	7.9	12.7	10.2	25.0	3.4	11.6	11.3
Accidental/ external cause	0.0	3.4	3.8	2.3	0.0	13.8	4.7	3.0
Other	2.5	0.0	0.0	6.8	0.0	10.3	0.0	2.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: JICA Study, 2003

Accessibility depends on its location, confidence in doctor, and reliability of treatment including drug supply. Since SVP has introduced in Ferghana and Navoi Oblast, accessibility increased. On the other hand, criteria can change if variety of choice exists like in Tashkent City. Going on foot takes 15 to 30 minutes was major answers and bus use costs 200 to 500 soums in general. Frequency of visit in average is under five times and the main reason was abdominal pain, fever and common cold for SVP or policlinics visit, chronic cardiac disease, kidney failure or injury was main symptom for rayon hospital.

In contrast with exit survey, the result of household survey shows the habitual use of health services by the population including who does not visit health facility. Pharmacy takes a place of the first visit as health service as well as SVP or policlinics. Average of frequency use nearly reaches 80%.

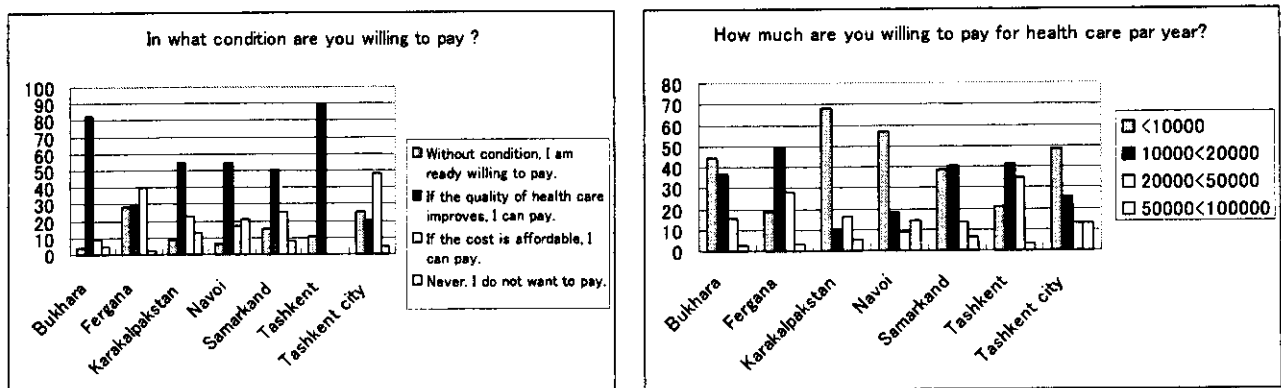
Also according to illness of level, health services are defined. Health service users recognize to use ambulance station for accident or sudden illness, severe or chronic diseases for rayon hospital and child and maternal health for SVP/ policlinics or rayon hospital.

Quality of health service and satisfaction level of care was mostly satisfactory (Reffer to

Appendix Table 11.2, 11.3, 11.4, 11.5, 11.6), but this subjective answer can arise from the fact that patient has not met with appropriate treatment yet. Still unequal relationship between doctor and patient remains, and without insistence of patient's right to gain medical information patient may receive passive or one-way consultation.

Also household survey shows that disappointment at health services points is lack of drug and diagnosis equipment in pharmacy, SVP, policlinics or maternal hospital.

Quality of health service gives different impact on patients. When the service meets satisfaction, consultation fee becomes willingness to pay, and when not satisfied, it becomes burden of payment.



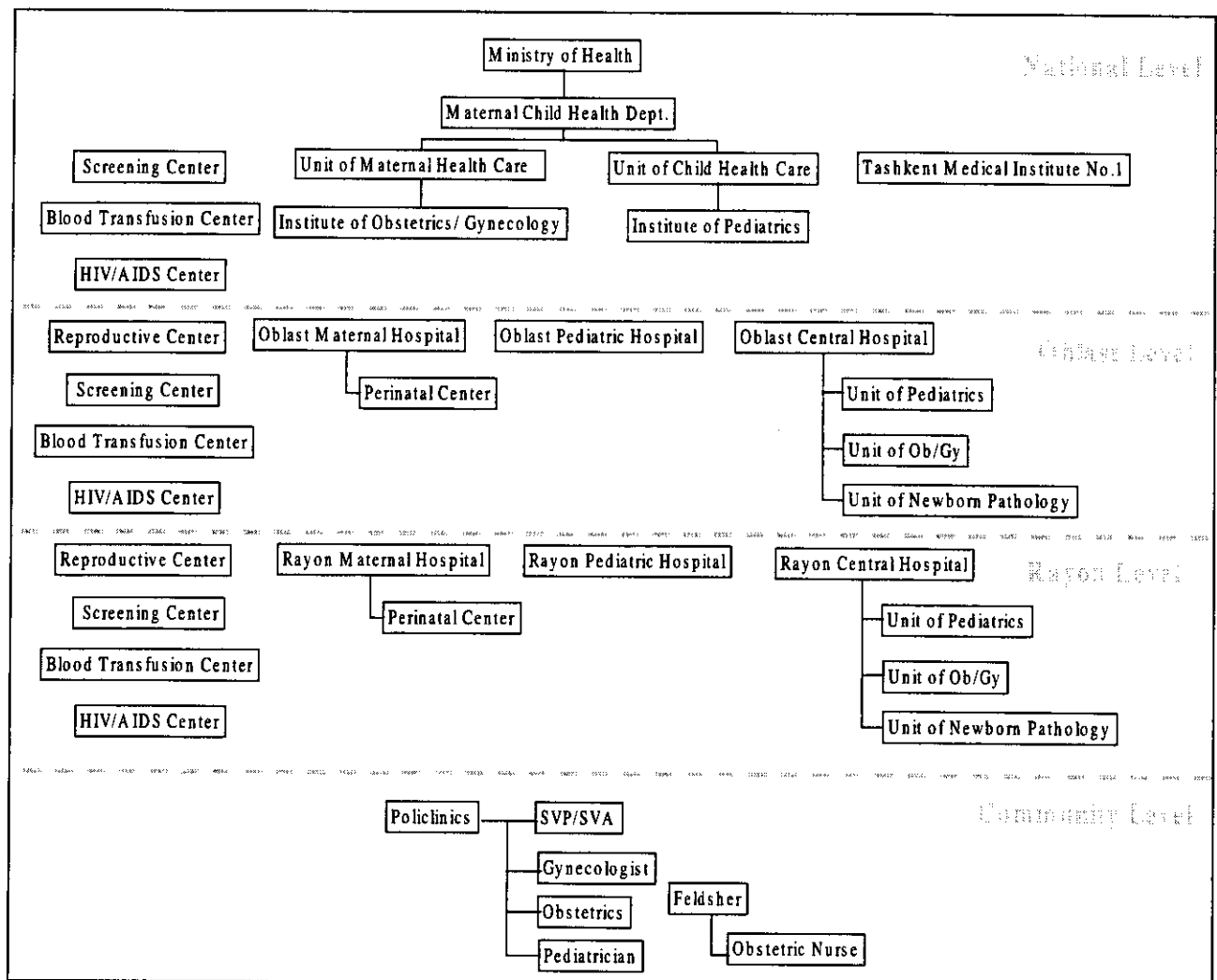
Household survey shows that if the quality of the health care is improved, beneficiaries intend to pay for the medical cost under 10,000 soums a year. However, already health expense is a heavy burden and poverty group tends not to use health services to save their money. Even health expense of 1,000soums per month is not affordable for some essential drugs such as antibiotic, and if the extreme poverty line is less than 2,600 soums per month, this health expense accounts for close to 40% of it. This environment creates a vicious cycle that the poor are the most affected by inadequate health status.

## 11.3 Maternal and Child Health (MCH)

### 11.3.1 Organization and Management

#### (1) Organization

Under the deputy who is responsible for sub sector of the MCH and family planning, the department of maternal and child health care in the Ministry of Health conducts unit of maternal health care and unit of child health care. Related institutes are linked with each stage of prevention, safe delivery and specific care, as shown in the following organizational structure.



#### (2) Institutional Management

##### 1) The Department of Maternal and Child Health Care

As policy maker, this department develops normative documents on their healthcare and conducts measures directed towards the implementation of directive documents, existing



legislation on rendering practical, organizational and methodical assistance to healthcare facilities and bodies by healthcare facilities. Also it concerns improvement of quality of medical services rendered to mothers and children at the expense of introduction of science and technology achievements to practice. Coordination among international organizations in the sphere of maternal and child healthcare is one of significant tasks providing the implementation of joint programs, projects and grants. Recently, the department tries to participate in determining the needs of maternity and pediatric facilities in pharmaceuticals, medical equipment.

2) Scientific and Research Institute of Pediatrics

The objectives are the conduction of scientific, curative and diagnostic, preventive measures directed towards the decrease of infants and child's morbidity and mortality. It renders methodical, scientific and practical assistance to pediatric facilities.

3) Scientific and Research Institute of Obstetrics and Gynecology

This Institute is the republican level facility rendering specialized high-qualified hospital as well as counseling and outpatient medical care to women of the Republic. The objective of the Institute is the conduction of scientific and research works in the sphere of mother and child healthcare. It renders the organizational and methodical as well as the scientific and practical assistance to maternal facilities of the Republic. The branches of the Institute in oblasts are its structural divisions and are implementing the same functions as the Institute at regional level.

4) Republican Screening Center

The Republican Screening Center is in Tashkent city and its regional branches are in the cities of Nukus, Andijan, Ferghana, Namangan, Samarkand, Karshi, Termez, and Bukhara. Presently they are setting similar centers in the cities of Urgench and Navoi. The activity of the Screening Centers is directed towards the early detection of congenital and other pathologies in newborns and pregnant women by conducting the screening researches in order to avoid the delivery of disabled since childhood.

5) Republican Perinatal Center

The main activities are the conduction of scientific and research, curative and diagnostic as well as the preventive measures directed towards the decrease of maternal and perinatal morbidity and mortality, rendering qualified surgical care to newborns with different

congenital pathologies of the development.

6) **Clinics of the Tashkent Medical Institute**

It renders qualified specialized medical care to children admitted from all the regions of the Republic.

7) **Republican Center for State Sanitation and Epidemiological Surveillance (SCSES)**

In order to provide the sanitation and epidemiology well being of population of the Republic, it organizes and conducts the sanitation and hygienic, preventive and anti-epidemic measures. Thus epidemiological data such as mortality rate related with maternal and child health is reported to SES.

### **11.3.2 Regulation and Strategy**

(1) **Millennium Development Goal (MDG)**

After “Health for All 2000”, recalling the commitments made in the United Nations, Millennium declaration was adopted by the U.N. General Assembly in September 2000. Among eight principles, MCH related targets are following two targets.

- Reduce child mortality: by the year 2015, reduce by two-thirds the mortality rate among children under five of their 1990 level
- Improve maternal mortality: by the year 2015, reduce by three-quarters the maternal mortality ratio of their 1990 level

These goals are set for general, and it may be good to follow common target. For example, MMR was 51.0 /100,000 live birth in 1992 and became 34.5 in 2000. The pointed goal shows 38.3 and this seems to be feasible for Uzbekistan in time. However, fundamental significance is not to reach the indicator, but to recognize immanent factors. Government of Uzbekistan should set own reasonable target according to the change of those mortalities.

(2) **Presidential Decree**

MCH has been prioritized and a series of programmes ‘MCH screening’, ‘Healthy Generation’, ‘Mother and Child’ and ‘Additional measures on improving maternal and children Health’ have been promoted. Besides, international donors undertake

implementation programmes such as integrated management of childhood illness (IMCI), Expanded Programme for Immunization (EPI), Safe Motherhood, breastfeeding, nutrition and micronutrient deficiency control and family planning.

### **BOX 11.2**

#### **Healthcare reform (1998-2005)**

Further development of MCH care service includes:

- Integration of children and maternity facilities
- Improvement of ensuring the safe motherhood and health condition of fertile age women
- Improvement of primary healthcare services for women, pregnant women and children
- Establishment of regional centers for 'MCH screening' in order to facilitate the early diagnostic of inborn and other diseases of children and pregnant women, thus preventing the cases of inborn disabilities
- Development of special medical genetics center for women and children examination
- Restructuring and improving the quality of pediatric services

### **(3) Decrees of the Ministry of Health**

The department of maternal and child health care in the Ministry of Health has six main concepts (as shown below), confirmed by the Decree of the Cabinet of Ministers No.32 in 2002.

- Reproductive health for its prevention and detection
- Improvement of screening for maternal and child health care by ultrasound apparatus in screening center
- Equipment supply for maternal and child health facilities
- Establishment of hematological blood supply system
- Education for community and retraining of medical staff
- Education for adolescent in school

Also the following decrees are the complement to unite maternal and child health care.

- "On setting the government system of early detection of congenital and other pathologies in newborns and pregnant women for avoiding the delivery of disabled - "Mother and Child Screening", No.140 in1998

- “The Healthy Generation”, No.46 in 2000
- “Mother and Child”, No.68 in 2001
- “On measures for implementation of family medical culture improvement, strengthening of women health, delivery and bringing-up the healthy generation”. No.242 in 2002

#### (4) Target Programmes

Most of ongoing programmes are coordinated with donors. Following table shows each target and activity.

**Table 11.6 Programs Coordinated with Donors**

International Agencies	Target Year	Target oblast	Activity
UNICEF	2000-2004	Andijan Fergana Karakalpakstan	<p>Implementing the Program on mother and child survival, development directed towards the decrease of maternal and infant mortality, iron deficiency anemia morbidity and iodine deficiency formations in early age. Pilot oblasts are introducing the following projects:</p> <ul style="list-style-type: none"> <li>• “Safe Motherhood”</li> <li>• “Live birth criteria introduction”</li> <li>• “Integrated treatment of children’s diseases”</li> <li>• “Breast feeding encouragement and promotion”</li> <li>• “Micro nutrients”</li> <li>• “Safe Immunization”</li> <li>• Anemia prevention</li> <li>• Safe injection</li> <li>• “Child’s early development”</li> <li>• Started work on the project of HIV vertical transmission from mother to child prevention</li> <li>• Supply of vaccines, iron containing medicines and medical equipment in the framework of projects</li> </ul>
UNFPA	2000-2004	Khorezm Samarkand	<p>The program is directed towards the</p> <ul style="list-style-type: none"> <li>• Potential strengthening of the workers of the Republican Reproductive Center and its branches in the Republic of Karakalpakstan in the field of reproductive health</li> <li>• Potential strengthening of primary level workers - GPs, obstetricians-gynecologists and obstetricians in two pilot oblasts - Samarkand and Khorezm</li> <li>• Implementation of MKHP goals, conduction of measures on the following: <ul style="list-style-type: none"> <li>• Family planning</li> <li>• Safe motherhood</li> <li>• STD prevention with HIV/AIDS</li> <li>• Youth reproductive health</li> <li>• Sterility and cervix of the uterus diseases screening</li> </ul> </li> <li>• Set up of the clinical division under the Republican Center of Reproductive Health with medical equipment for 70.000 USD</li> <li>• The Republican Center of Reproductive Health is equipped with audio-visual equipment for 5.000 USD</li> <li>• Contraceptives supply</li> <li>• Implementation jointly with UNESCO, the sub-program on work with</li> </ul>

International Agencies	Target Year	Target oblast	Activity
			community of HOK which will provide posters, brochures and booklets on reproductive health in the framework of the above program
WHO		Karakalpakstan	<ul style="list-style-type: none"> <li>• “Safe Motherhood”</li> <li>• “Integrated treatment of children’s diseases”</li> <li>• Breast feeding encouragement and promotion”</li> </ul>
World Bank		Ferghana Navoi Syrdarya	<p>Implements the “Health-1” Project Strengthening of primary level of the healthcare in rural area. In the framework of the project:</p> <ul style="list-style-type: none"> <li>• The SVPs are equipped with medical outfit and devices as well as vitally important pharmaceuticals</li> <li>• GP training centers are set up under 5 medical institutes on GPs training</li> <li>• The GPs are trained</li> </ul>
Asian Development Bank			<p>The Project of “Nutrition improvement among mother and children with scanty means in Central Asian countries with the period of transition” Conducted the supply of technological equipment for flour-grinding industry. Received 1 batcher AIC-250 and batcher AIC-500 as well as 2 tons of premix for flour enrichment.</p> <p>Prepared the order of equipment delivery for salt-manufacturing industry (12 iodine machines, 6 packing lines and 5400 kg of potassium iodide). Total budget is planned as 1.2 million US\$.</p>
USAID/ CDC	2003- 2004	Ferghana	<p>Implementing the project jointly with UNICEF</p> <p>Introduction of live birth criteria recommended by WHO</p>
USAID/ ZdravPlus	2000- 2004	Ferghana Navoi Syrdarya Surkhandarya (Andijan)	<p>ZdravPlus project is implemented to support the healthcare reforms program in the Republic of Uzbekistan, particularly in the sphere of strengthening the primary medical care.</p> <p>GPs re-training</p> <p>Short-term courses for GPs on:</p> <ul style="list-style-type: none"> <li>• Introduction of Integrated treatment of children’s diseases (ITCD)</li> <li>• Anemia prevention and rational nutrition</li> <li>• Reproductive health</li> </ul> <p>Developed an improved system of drugs supply and distribution</p> <p>Provision of contraceptives</p> <p>Translation and publishing the brief JHPIEGO guideline on reproductive health</p> <p>Established the Drugs Information Center</p> <p>Developed the course on laboratory diagnostics</p>
KfW	2002- 2004	Andijan Bukhara Ferghana Kashkadarya Namangan Surkhandarya Tashkent	<p>The Projects on “Reproductive Health care 1-2” are directed towards the following:</p> <ul style="list-style-type: none"> <li>• Providing the fertile age women with contraceptives</li> <li>• Providing medical workers and community with information materials on reproductive health and STDs</li> <li>• Decrease of HIV/AIDS expansion in pilot oblasts</li> <li>• The Centers of Reproductive Health are equipped with audio-visual outfit and office equipment in the framework of the project</li> </ul>
Project “HOPE”		Kashkadarya Surkhandarya Navoi	<p>The WHO projects are implemented in pilot oblasts on:</p> <ul style="list-style-type: none"> <li>• “Safe Motherhood”</li> <li>• “Integrated treatment of children’s diseases” (ITCD)</li> <li>• Breast feeding encouragement and promotion</li> <li>• “Reproductive health improvement”</li> <li>• Work with community on education with reproductive health and healthy life style promotion issues</li> </ul>
MSF		Karakalpakstan	The Republic of Karakalpakstan is implementing the DOTS program on TB prevention

### **11.3.3 Facility and Equipment for MCH**

MCH activities have to be implemented at each level of health facility. In consideration of the high prevalence of anemia, blood transfusion and referral system are important factors for maternal and neonatal mortality. An emergency center in each oblast has been established since 1998; however, there are no clarified criteria for distinguishing urgent complicated cases between the emergency center, and maternity or pediatric oblast hospital. Most of delivery has to be in maternal hospital at rayon level and births need to be registered. Primary health facility has a role of health check for pregnancy. Newly introduced screening center detects high risk or abnormal pregnancy. Primary health facility starts to be equipped on the process of SVP reform gradually and prenatal and antenatal care including home visit is on going. Rayon hospital should be prepared for referred mothers who have complication or expected difficult labor and immature infants, indeed, there is little prepared for abnormal delivery. Neonatal intensive care unit (NICU) is just named and separated from newborn nursery room. There is not enough number of incubator and ventilator. Also blood transfusion correspondence for hemorrhagic shock is limited. Newly constructed tertiary level hospitals perform its part effectively, however accessibility is narrow.

Primary level facility seems to keep essential drugs for only minimum use and it will not be able to meet urgent mass consumption needs. There is no clear policy for urgent cases, except for the means to refer to upper level facilities. Regarding immunization for mother and child, EPI is in place and is totally a donor activity. Folic acid tablet supply targets pregnant women with anemia and limited resources need to focus on only high-risk group.

### **11.3.4 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 during the last decade in the official report.

**Table 11.7 Transition of IMR, MMR and TFR (1992-2000)**

	1992	1993	1994	1995	1996	1997	1998	1999	2000
IMR (female)	32.3	27.4	24.5	22.4	21.6	19.8	18.7	17.3	16.6
IMR (male)	42.2	36.4	31.5	29.3	26.7	25.6	24.7	22.9	21.2
MMR	51.0	40.6	38.6	32.2	20.7	28.5	28.6	31.2	34.5
TFR	4.0	3.8	3.5	3.6	3.3	3.1	2.8	2.7	2.6

Remark: IMR: number of dead at the age under 1 year accounted / 1,000 live birth

MMR: number of women died from a complicated pregnancy, childbirth and postnatal period/100,000 live birth

TFR: average number of children that would be born per woman if all women lived to the end of their childbearing years

Source: Women and men of Uzbekistan (2002), the state statistic dept. of the ministry of macroeconomics and statistics of the republic of Uzbekistan

### 1) Infant Mortality Rate

Infant mortality rate is estimated using the live birth and stillbirth criteria and most countries adopts WHO definition. However, Uzbekistan is still in transition shifting from the Soviet definition. According to the Soviet definition, an infant born after the end of 28th week of pregnancy is considered stillbirth if there is no breath but other signs of life. Miscarriage is an infant born before the end of 28th week of pregnancy weighing less than 1,000g irrespective of no breath but other signs of life if it dies during the first 7 days. This implies that if WHO definition were introduced, IMR would be 20 to 25% higher. Thus, if an infant died and there was doubt regarding one of the these measures, it would have been to the benefit of the hospital to err on the side of stating that infant was extremely premature, or internationally to misreport the birth as a stillbirth, because IMR was one criterion used to evaluate hospitals.

Also lack of data on mortality rate of low birth weight infants obstructs to improve population's health.

**Table 11.8 Soviet and WHO Definition of “Live birth”**

Infant born after the end of the 28 <sup>th</sup> week of pregnancy				
	No sign of life	No breath, but other signs of life	Dies during the first 7 days	Survives the first 7 days
Soviet definition	Stillbirth		Live birth	
WHO definition	Stillbirth		Live birth	

Infant born before the end of the 28 <sup>th</sup> week of pregnancy or weighing <1,000g or <35cm in length				
	No sign of life	No breath, but other signs of life	Dies during the first 7 days	Survives the first 7 days
Soviet definition	Miscarriage			Live birth
WHO definition	Stillbirth		Live birth	

Source: Population and development review, 1986

According to the recent study of UNICEF for birth weight proportionate mortality by intervention category\*, there is an opportunity gap on a trial calculation between reported neonatal death and estimated neonatal death. Assumption adopts birth weight proportionate mortality rate of neighboring country to estimate Uzbekistan case. This calculation shows that against total reported deaths were 3911 cases in pilot area, estimated cases in the range from 2155 to 5666 were counted as stillbirth. Thus, among this number, 3503.5 children could be saved if neonatal care were developed well. Large number of expanded definition of stillbirth reduces neonatal mortality rate.

\* Estimation under the category, a horizontal axis is the stage of delivery divided to death in antepartum period (AP), death in intrapartum period (IP), early neonatal death (END), late neonatal death (LND) and post neonatal death (PND), and a vertical axis is birth weight divided in very low birth weight infant (VLBW), low birth weight infant(LBW) and normal birth weight infant.



**BOX 11.3**

**Table A. Trial Calculation of Birth Stage and Birth Weigh  
Specific Number of Death in Tashkent City**

Birth weight	AP	IP	END	LND	PND	Total Death
<1500g	8	2	23	9	5	47
1500-2499g	36	7	93	37	137	310
>2500g	117	29	220	86	189	641
Total	161	38	336	132	331	998

**Table B. Estimation of the Number of Unreported Deaths in Tashkent City**

**B-1: Low birth weight rates**

Birth weight	BW rates	No. of newborn <sup>1)</sup>	BWSMR	Expected No. of death <sup>4)</sup>	Observed No. of death	Unreported
<1500g	1%	302	700 <sup>2)</sup>	211	47	164
1500-2499g	5%	1509	350 <sup>3)</sup>	528	310	218
Total	6%	1811		739	357	382

**B-2: High birth weight rates**

Birth weight	BW rates	No. of newborn death <sup>1)</sup>	BWSMR	Expected No. of death <sup>4)</sup>	Observed No. of death	Unreported
<1500g	2%	604	700 <sup>2)</sup>	423	47	376
1500-2499g	10%	3018	350 <sup>3)</sup>	1056	310	746
Total	12%	3622		1479	357	1122

1) Number of newborn death is calculated on the basis of birth rate (population 30183)

2) 700 per 1000 of BWSMR for children less than 1500g will die in country like in Kazakhstan

3) 350 per 1000 of BWSMR for children between 1500 and 2499g

4) Expected number of death = BWSMR x No. of newborn death/1000

In the case of Tashkent City trial, against observed number of death 357 cases around 382 to 1122 cases are suspected as underreported neonatal death.

Source: BABIES survey in Uzbekistan 2003, UNICEF

**2) Maternal Mortality Rate**

Maternal mortality rate gradually has 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 extragenital (non gynecological) diseases. Also caesarian operation can cause maternal mortality linking Hemorrhagic shock or low implantation of placenta.

Stillbirth and miscarriage cases imply not only maternal care is poor but also mother's health condition is weak. Thus, even though the childbirth is carried, an aftereffect can be

left to infant.

**Table 11.9 Number of the Complicate Childbirth per 1,000 Childbirth (1998-2000)**

	1998	1999	2000
Anemia	291.5	240.3	240.2
Cardiovascular diseases	12.7	6.9	6.6
Diabetes	0.1	0.1	0.1
Late toxicosis	40.4	40.0	38.2
Urine genital diseases	33.3	25.6	26.1
Venous complications during the period of pregnancy	6.8	5.6	5.2
Flood during the under childbirth and after childbirth period	44.3	61.4	44.2
Anomaly of birth activity	57.0	54.9	53.0

Source: Women and men of Uzbekistan (2002), the state statistic dept. of the ministry of macroeconomics and statistics of the republic of Uzbekistan

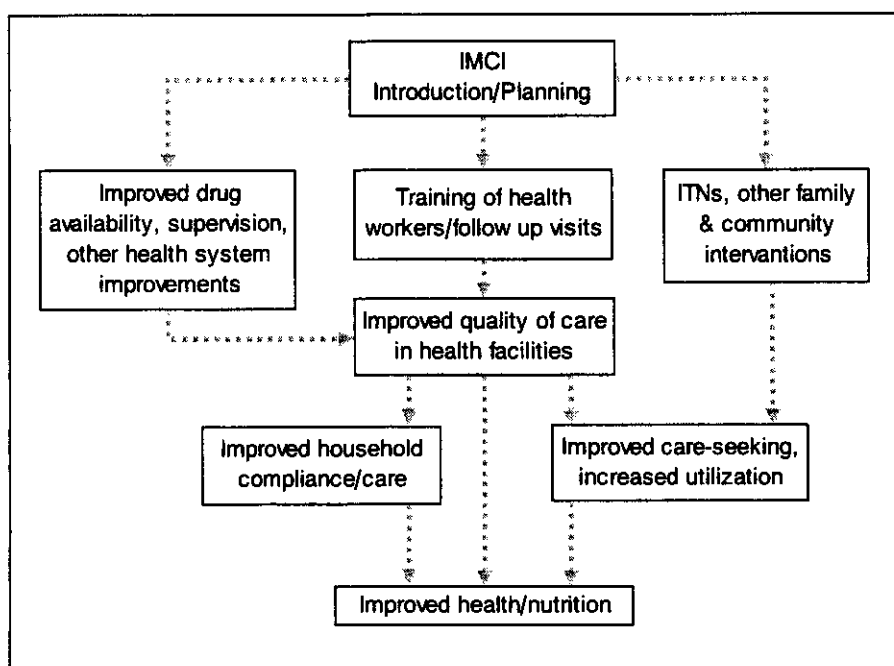
## **(2) Child Care**

### **1) Integrated Management of Childhood Illness (IMCI)**

In Uzbekistan, about 12,000 children die before reaching 5 years old. 61% of them die in 1 year old. 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.

Children brought for medical treatment are often suffering from more than one condition. Therefore making a single diagnosis is impossible. Thus, 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 with families and communities as well as health facilities. 3 main components of the strategy is;

- Improving case management skills of health-care staff
- Improving overall health systems
- Improving family and community health practices



**Figure 11.1 Model of IMCI Impact**

In Uzbekistan, coordination council and working groups on adaptation of IMCI has been formulated and Republican Center of IMCI in Navoi and Ferghana Oblast has been created according to the decree of the Ministry of Health No.542 in 1999.

Under the 3 IMCI components, concrete action is formulated as:

Improving case management skills of health-care staff:

- 90% of medical staff is under the observation to improve case management skills
- Data collection system is available by course director's report and monitoring

Improving overall health systems:

- Essential drug (including ORS) supply
- Availability to refer to the hospital within limits of 30 minutes
- Educated 400 nurses in accordance with the IMCI strategy in Navoi Oblast

Improving family and community (mahalla) health practices:

- Experience on activities with population in Navoi (2 districts) and Ferghana (whole province) oblast
- Investigations on KAP were conducted in Navoi and Ferghana oblast (pilot

regions)

- BDOR degree is nominated for 14 maternity houses
- 30 mother-support-groups is created
- National trainers is prepared on rational nutrition, skills of interpersonal communication (IPC)
- Training module on rational nutrition and IPC is created
- IEC material for parents on sick and healthy child care is elaborated
- Middle medical staffs and representatives (400 persons in Navoi and 200 persons in Ferghana oblast) in central branch office and NPO are educated with population

## 2) Breastfeeding

Malnutrition and repeated infections forms vicious circle. Prevalence from wrong nutrition appears sharply from 6 to 8 month. Therefore consultation to mothers on infant's nutrition by breastfeeding is effective until 6 months. Formation of knowledge and skills at family and mahalla levels, hygienic conditions and support of breastfeeding is carried with IMCI action.

## 3) Nutrition Control

In Uzbekistan, local diet does not comprise a sufficient quantity of microelements as iodine and ferrum. High prevalence of Vitamin A deficiency is seen among the children.

The IMCI actions will be carried out in programs addressing lack of micronutrients (ferrum, iodine, and vitamin A).

## 4) Prevention of Infectious Diseases

Pneumonia and diarrhea are infectious diseases, which are in combination with malnutrition. Also hepatitis B, measles, tuberculosis and meningitis lead under 5 years old mortality. Thus, programs on addressing pneumonia, ARI and diarrhea are the main part of integrated approach to prevention and ordinary disease management.

Mortality from ARI and diarrhea should be decreased through interaction with the following 3 programs: IMCI, National immunization program (EPI) and Health care Program for School children (including helminthic invasions for healthy growth of children).

### **(3) Maternal Care**

#### **1) Women's Nutritional Status**

Asiderotic anemia 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 anemia is the highest. The effort for anemia control was launched a decade ago. Severe anemia\* has been decreasing due to supply of chalybeate and folic acid tablet for high risk group and reproductive age group at primary health care. Iron deficiency causes low consumption of food products containing alimentary iron and promoters of iron absorption, such as animal protein and ascorbic acid. Thus, health intervention programs are necessary, to provide information on preventing many severe complications of pregnancy and on delivery related to iron-deficiency anemia among women of certain ethnic, educational, and residential groups.

#### **2) Reproductive Health**

Marital status statistics show that 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. People can reach it in hospital and pharmacy; however the price is not accessible for poverty group. For example a condom costs 200 sums while bread cost 100 sums on the market.

During the period from 1945 to 1992, there was a policy to promote having four children by age of 35 and those couples were guaranteed by social security, even received official commendation. Traditionally, family wants a male successor and continues having children until being given birth to a boy. Also in rural area, child is a labor resource for agriculture and family tends to have several children. This is shown in the mean size of household number as 4-5 persons in urban area and 5-6 persons in rural area. Those backgrounds sometimes oppose family planning and force unwanted pregnancy on mothers.

Abortion was first legalized in the Soviet Union in 1920 but was banned in 1936 as part of

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\* Severe anemia was diagnosed when hemoglobin concentration was less than 7.0 g/dl, moderate anemia when the hemoglobin concentration was 7.0-9.9 g/dl, and mild anemia when the hemoglobin concentration was 10.0-11.9 g/dl (10-10.9 g/dl for pregnant women and children under age three).

above mentioned natalis promotion policy emphasizing population growth. This decision was reversed in 1955 when abortion for non-medical reasons was again legalized throughout the former Soviet Union.

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

### 3) Making Pregnancy Safer

High risk groups for pregnancies with blood disease (ITP), cardiovascular disease, endocrinal disease (diabetes, disease of the thyroid), kidney disease (nephrosis, nephritis) and autoallergic disease (diffuse lupus erythematosus, chronic rheumatoid) should be observed by screening. To reduce MMR and IMR, screening puts emphasis on middle gestation. Treatment of high risk pregnancy is a measure to serve VLBW and it works cost-effectively.

As part of its continuing efforts to improve maternal and neonatal health, “mother-baby package” has been introduced. This package describes each intervention needed to achieve “safe motherhood” in the short term. It represents the synthesis of activities at different levels of the health care system, and defines a basic set of health system interventions and activities. It outlines what can be done to prevent and manage major obstetric complications in the community, at the health center and at the hospital. Throughout, it focuses only on those interventions known to be effective which can be implemented by making most efficient use of available resources.

**Table 11.10 Mother-Baby Package**

**Before and during pregnancy**

- Information and services for family planning
- STD/HIV prevention and management
- Tetanus toxoid immunization
- Antenatal registration and care
- Treatment of existing conditions
- Advice regarding nutrition and diet
- Iron/folate supplementation
- Recognition, early detection and management of complications (eclampsia/ pre-eclampsia, bleeding, abortion, anaemia)

**During delivery**

- Clean and safe delivery
- Recognition, early detection and management of complications at health centre or hospital (for example, haemorrhage, eclampsia, prolonged/ obstructed labour)

**After delivery: mother**

- Recognition, early detection and management of postpartum complications at a health centre or hospital (for example, haemorrhage, sepsis and eclampsia)
- Postpartum care (promotion and support to breast-feeding and management of breast complications)
- Information and services for family planning
- STD/HIV prevention and management
- Tetanus toxoid immunization

**After delivery: newborn**

- Resuscitation
- Prevention and management of hypothermia
- Early and exclusive breast-feeding
- Prevention and management of infections including ophthalmia neonatorum and cord infections

Source: implementing safe motherhood in countries, WHO 1994

Essentially, women, men, family and communities have abilities to take care of themselves. In many cases these capacities need to be strengthened while emergency care has not reached their communities. Communities need to be strengthened and families supported to provide the necessary care to improve child survival, growth and development. The evidence suggests that families should:

- Breastfeed infants exclusively for at least 6 months.
- Starting at about 6 months of age, feed children nutrient rich complementary foods, while continuing to breastfeed up to two years or longer.
- Ensure that children receive adequate amounts of micronutrients (vitamin A and iron in particular), either in their diet or through supplementation.
- Dispose of faeces, and wash hands after defecation, before preparing meals, and

before feeding children.

- Take children as scheduled to complete a full course of immunizations (BCG, DPT, OPV, and measles) before their first birthday.
- Promote mental and social development by responding to a child's needs for care, and through talking, playing, and providing a stimulating environment.
- Continue to feed and offer more fluids, including breast milk, to children when they are sick.
- Give sick children appropriate home treatment for infections.
- Recognise when sick children need treatment outside the home and seek care from appropriate providers.
- Follow the health worker's advice about treatment, follow-up and referral.
- Ensure that every pregnant woman has adequate antenatal care. This includes having at least four antenatal visits with an appropriate health care provider, and receiving the recommended doses of the tetanus toxoid vaccination. The mother also needs support from her family and community in seeking care at the time of delivery and during the postpartum and lactation period.

To provide this care, families need knowledge, skills, motivation and support. They need to know what to do in specific circumstances and as the child grows and develops. They need skills to provide appropriate care and to solve problems. They need to be motivated to try and to sustain new practices. They need social and material support from the community.

#### **11.4 Sanitation and Hygiene**

As one of PHC elements, "safe water and sanitation" is essential to health, and a human right for health protection. The importance of safe water, sanitation and hygiene for health development is reflected onto another PHC element "prevention and control of local endemic diseases". It has been launched since Alma Ata Conference in 1979 and recent World Summit for Sustainable Development in Johannesburg 2002 confirmed as one of Millennium Development Goals.

In Uzbekistan, State Sanitary and Epidemiological Surveillance Department in Ministry of Health is in charge of those issues and international donors such as WHO, UNICEF and UNDP or bilateral cooperation carry out programmes in this field. 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.

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

#### **11.4.1 Organization and Management**

##### **(1) State Sanitary and Epidemiological Surveillance Department in MOH**

In the former Soviet Union era, there were 11 organizations. Since health reform, following organizations have been established to coordinate from regulation settlement to monitoring qualities. State Sanitary and Epidemiological Surveillance Department in MOH conducts following services to integrate regulation and policy, technical education, implementation and quality control. Main services are appointed in 4 centers, Republican Center for State Sanitation and Epidemiological Surveillance (SCSES), Republican AIDS Center, Republican Disinfection Station and Republican Institute of Health.

5 main services:

- Sanitation and epidemiological service
- HIV/AIDS service
- Disinfection service
- Quarantine service
- Health promotion activities

5 specialized institutes:

- Institute of sanitation, epidemiology and infectious diseases
- Institute of microbiology, epidemiology and infectious diseases
- Institute of virology
- Institute of medical parasite diseases
- Institute of health

Policy making in MOH:

- Setting law on sanitation
- Setting law on hygiene
- Making strategy for STD control
- Publishing methodical guide line
- Taking action for fulfillment of Decrees

Evaluation system:

- Scientific research center
- Facility of medicine
- Committee of hygiene and sanitation

**(2) Republican Center for State Sanitation and Epidemiological Surveillance (SCSES) of MOH**

SCSES is in charge of sustaining sanitation and epidemiological service management, having branch networks in each oblast and rayon level to collect inspection result and epidemiological data. As main activities, SCSES monitors water quality for bacterial pollution and provides vaccine (includes hepatitis B), AD syringes, and safe box to discard used syringe needles for all regions. For this issue, SCSES has introduced to supply self-destroying syringes for all type of PRI vaccines for children under one year old. For those activities, SCSES has coordinated with UNICEF under such programs as “Safe Immunization” for capacity building in higher and secondary vocational medical institute, “Global Alliance for Vaccines and Immunization (GAVI)” to strengthen the prevention of child infection with hepatitis B and parental transmitted diseases and “Water sanitation and Hygiene” for providing sanitation system, monitoring skill with community and local SES.

**(3) Republican AIDS Center of MOH**

Republican AIDS Center is responsible for sustaining HIV service management, mainly its surveillance, prevention, diagnosis and treatment. Each oblast has a branch of center, inter-rayon and rayon AIDS diagnostic laboratories detect among populations and report those result to oblast AIDS center. In the official report, the number of registered HIV positive patients in Uzbekistan has increased from 779 cases in 2001 up to 2,209 cases in 2003. 64% of them were intravenous drug users. Half of all patients is registered in Tashkent City, and a quarter of all patients is registered in Tashkent oblast. Also Surkhandarya and Samarkand oblasts are notable as a cross road of drugs traffic is close to

the borders with Tajikistan and Afghanistan. As an attempt to cope with this situation, UNAIDS assists technically to increase knowledge and preventive measures on HIV/AIDS, and, also USAID/ Center for Diseases Control and Prevention of the United State of America (CDC) assists capacity building in training specialists, such as HIV sentinel surveillance and the second-generation HIV surveillance in the pilot project area.

**(4) Republican Disinfection Station**

Republican Disinfection Station is in charge of sustaining disinfection service management, conducting territorial disinfection stations at self-support basis, to prevent communicable and non-communicable diseases. There are 2 hub stations in Tashkent City and Karakalpakstan to cover nationwide. Also quarantine service management is a part of disinfection services, being waged at its point of entry into the country and inspecting its outbreak in the country. However, some difficulties exist upon the linkage between disinfection station and oblast health care department, due to different aspect of health care on curative and preventive care. On the other hand, tradition and gender issue sometimes embarrass their health promotion in community-based activities.

**(5) Republican Institute of Health**

Republican Institute of Health was established according to the Presidential Decree (No.UP-2107) in 1998 and law of MOH (N0.101) in 2001. It is responsible for health promotion activities, strengthening community health through health center in 161 rayons and 15 cities. To enforce this new strategy at community level, each oblast states in the agreement. Appendix Table 11.7 in appendices shows the agreement of oblast government toward health promotion.

This health promotion activity is linked with donor's promotion. Table 11.8 in appendices shows the cooperative activities with donors.

There has been no cadre of public health specialists in the country until the recent introduction of a course to train such people at Tashkent Medical Institute No.2. Functionally this institute appears to be little different from the old Centers of Health whose name has been retained at rayon level. Also tradition or mentality impedes the work with population on reproductive health issue as well as the youth training on sexual behavior and STD prevention.

## 11.4.2 Safe Water Supply

### (1) Current Situation

#### 1) Water Supply Coverage

According to the Multiple Indicator Cluster Survey which was 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 Tashkent City, 99% is distributed through conduit pipes in 99% but in rural area it still depends on well such as 40% in Bukhara, according to the Baseline Survey by JICA Study for selected 6 oblasts. It assumes that not only Bukhara but also Karakalpakstan can be the similar result, however in the selected rayon, water was widely distributed through conduit pipes.

**Table 11.11 Main Source of Water Supply in Household**

Region	Bukhara		Ferghana		Karakalpakstan		Navoi		Samarkand		Tashkent city		Tashkent		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Tap	358	42.9	708	72.3	769	84.0	693	63.6	776	81.4	509	99.0	456	96.2	4269	74.1
Well	346	41.4	233	23.8	117	12.8	110	10.1	133	14.0	5	1.0	7	1.5	951	16.5
River	60	7.2	3	0.3	14	1.5	53	4.9	3	0.3	0	0.0	1	0.2	134	2.3
Feed tank	71	8.5	35	3.6	16	1.7	233	21.4	41	4.3	0	0.0	10	2.1	406	7.0
Total	835	100.0	979	100.0	916	100.0	1089	100.0	953	100.0	514	100.0	474	100.0	5760	100.0

Source: JICA Study, 2003

#### 2) Water Resource Management

Water resource management is an integrated aspect of preventive management for quality of drinking water. Prevention of microbial and chemical contamination in source water is the first barrier for public health concern.

Tashkent City has 8 modern waterworks station such as “Trest SUV SOZ”, and 4 small stations among them depend only on groundwater.

Also sewage treatment plant such as “Salar Toyintirish Inshoot” treats 70% of sewage in Tashkent City. Use of water in Tashkent City is double in amount comparing to European average, because there is no awareness of saving water with fixed payment, and this makes the pollution level lower.

### 3) The standard on Drinking Water in Uzbekistan

The standard on drinking water covers the water in centralized systems for household and drinking supply. Technically the standard should satisfy the content of controlled indicators of drinking water quality, and it is prescribed also for the purposes of certification of drinking water and its use by the certification authorities in the field of household-drinking water supply. The water must be safe epidemically, harmless in chemical content, must have favorable organoleptic characteristics and be radiation-free. The implementation of these requirements is reached while compliance of drinking water quality indicators with standards is supervised on the results of monitoring conducted according to the methods.

By presence of data on supply water pollution with agents, the additional quality control of these agents and the evaluation of its harmlessness are introduced in according with the Tolerance Limited Concentrations (TLC) of detected agents.

Temporary deviations that can influence on organoleptic characteristics of water can be assumed, according to the decision of sanitation and epidemiological service, that these deviations are caused by objective natural conditions or emergency situations and that they can bring no harm to the health of population.

When suspicion of pollution arises in the source of drinking water with chemical agents, which have no accessible and sensible methods of their detection, it is recommended to conduct bio-test of drinking water on the index of toxicity for Infusoria or Daphnia as the supplementary integral indicator.

In general, those standards are still based on former Soviet Union Gage, which is called GOST, and it differs from WHO standard. However, the nation does not need to accommodate the whole WHO standard, as national standard, rather than defining own safety for acceptable level of risk in particular circumstances here in Uzbekistan (Refer to Appendix Table 11.9,11.10,11.11). It has been recognized that a few 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. The Uzbek standard has covered this issue sufficiently.

#### 4) Surveillance and Quality Control

As mentioned in “10.Health Information System”, surveillance and quality control system is conducted by SES. On the regular inspection, if one single indicator shows over standard level among 23 items, the water resource facility will be imposed a penalty.

Table 11-12 show the results of water quality in each oblast. 9,420 samples of tap water were selected for bacteriological research, among which 583 (or 6.2%) were not complying with “Drinking water” standard. The major pollution was registered in Surkhandarya oblast 14,4% (95 samples of 658), Tashkent oblast 12,5% (283 samples of 2,265) and Syrdarya oblast 9.7% (36 samples of 371). 3,414 samples were selected for sanitation and chemical indicator researches, among them 515 (or 15.1%) were not complying with “Drinking Water” standard. Worse indicators were exhibited in Bukhara oblast 40.4% (97 samples of 240), Khorezm oblast 36.4% (100 samples of 275) and the Republic of Karakalpakstan 30.2% (158 samples of 522).

**Table 11.12 Hygienic Characteristic of Tap Water (November 2002)**

Administrative territory	on bacteriological indicators			on chemical indicators		
	total samples	among them not complying with sanitation standards		total samples	among them not complying with sanitation standards	
		absolute figures	%		absolute figures	%
Andijan	186	4	2.1	96	3	3.1
Bukhara	514	13	2.5	240	97	40.4
Djizzakh	343	11	3.2	90	-	-
Kashkadarya	818	27	3.3	98	1	1
Navoi	264	-	-	106	5	4.7
Namangan	707	36	5.1	288	4	1.4
Samarkand	930	18	1.9	403	26	6.4
Surkhandarya	658	95	14.4	425	54	12.7
Syrdarya	371	36	9.7	97	15	15.4
Tashkent	2265	283	12.5	249	30	12
Tashkent city	815	7	0.85	149	1	0.6
Fergana	817	17	1.4	376	21	5.6
Khorezm	310	29	9.4	275	100	36.4
Republic of Karakalpakstan	422	12	2.8	522	158	30.2
Total on Uzbekistan	9420	583	6.2	3414	515	15.1

Source: CSSES

During the surveillance for the condition of water objects in public water usage, 2,090 samples were selected for bacteriological indicators (Table 11-13). Among which 217 (or 10.4%) were not complying with sanitation and hygienic standards. The major pollution of surface water was exhibited in the Republic of Karakalpakstan 48.6% (51 samples of 105), Tashkent city 39.2% (38 samples of 97) and Khorezm oblast 35.7% (5 samples of 14). 982

samples were selected for chemical indicators research, among which 160 (or 16.3%) were not complying with sanitation and hygienic standards. The major incompliance was observed in Andijan oblast 60.0% (9 samples of 15), Tashkent city 40.0% (22 samples of 55) and Surkhandarya oblast 30.1% (25 samples of 83).

**Table 11.13 Hygienic Characteristics of Water Objects  
in Places of Public Water Usage by Population (November 2002)**

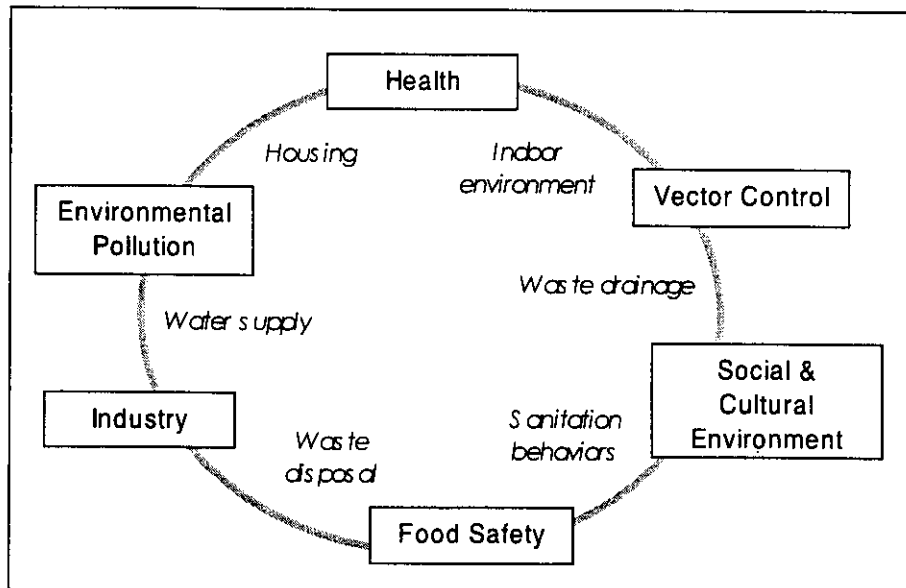
Administrative territory	on bacteriological indicators			on chemical indicators		
	total samples	among them not complying with sanitation standards		total samples	among them not complying with sanitation standards	
		absolute figures	%		absolute figures	%
Andijan	116	3	2,6	15	9	60,0
Bukhara	299	2	0,7	131	35	26,7
Djizzakh	186	6	3,2	6	-	-
Kashkadarya	105	-	-	19	-	-
Navoi	51	-	-	36	-	-
Namangan	61	-	-	179	32	17,8
Samarkand	166	4	2,4	177	6	3,4
Surkhandarya	96	5	5,2	83	25	30,1
Syrdarya	116	11	9,5	22	-	-
Tashkent	266	87	32,7	54	-	-
Tashkent city	97	38	39,2	55	22	40,0
Fergana	412	5	1,2	79	8	10,1
Khorezm	14	5	35,7	40	12	30,0
Republic of Karakalpakstan	105	51	48,6	86	11	12,8
Total on Uzbekistan	2090	217	10,4	982	160	16,3

Source: CSSES

Centrally- controlled water keeps its quality at optimal level, however, water in Aral Sea region such as Karakalpakstan is in the serious condition. In urban area, due to the decreasing quantity of water in Amu Darya River, the Tyuamuyan Reservoir can keep water only in half of its capacity. In rural area, groundwater level is shallow for well and hand pump. Generally, no surface water or shallow groundwater should be used as a source of drinking water without treatment or sanitary protection, but in this area, groundwater is the only resource, and its quality is high in salinity and not filtrated, thus it causes high risk of water borne diseases and typhoid and diarrhea or kidney failure.

#### 5) 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. Following figure shows definition and linkages of environmental sanitation by WHO.



Source: WHO

**Figure 11.2 Definition and Linkages of Environmental Sanitation**

Environmental factors, which put impact on the infectious diseases, are disposal of human excreta, sewage, household waste, water drainage, domestic water supply and housing. Thus, environmental sanitation strongly depends on social and cultural behavior and belief, and those have to be considered when health promotion practice is planned.

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

**(2) Recommendation for “Safe Water and Sanitation”**

The current problems in Uzbekistan can be addressed in;

- How shall limited health budget be allocated?
- How quality control shall be sustained?



- Where is the human resource to support quality control technically?
- Where should be target for safe water supply?

In general, the accessibility is reached more or less in Uzbekistan. The problem is the quality of water and quantity in specific areas, therefore issues are; groundwater resource in community, decreasing water quantity in Aral Sea region, and sustainability of stable safe water supply.

As far as the quality control of groundwater is concerned, the principal risks to human health associated with community water supply are microbial. The parameters recommended for the minimum monitoring of community water supply are those that best prove the hygienic state of the water and the risk of waterborne infection. The essential parameters of water quality are:

- E. coli/ faecal coliforms are accepted as suitable substitutes
- Chlorine residual (if chlorination is practiced).
- pH (if chlorination is practiced);
- Turbidity

These parameters may be measured on site using relatively unsophisticated testing equipment. On-site testing is essential for the determinations of turbidity and chlorine residual, which change rapidly during transport and storage. Community participation for sampling and quick measurement can be cost-effective. This is also important for other parameters as well, on the sites where laboratory support is lacking or where transportation problems would render conventional sampling and make the 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. Only specific parameter must be carried to SES branch with mass sample to analyze efficiently.

In addition, Institute of Health can train community for stable quality control development and awareness of community health.

Those actions are partially started in UNICEF program with NGOs, involving schools and communities.

## **11.5 Infectious Diseases**

### **11.5.1 Current Situation of Infectious Diseases in Uzbekistan**

#### **(1) Typhoid and Paratyphoid A, B, C**

The trend of incidence is on the decline. According to the data of RIAC from 1992 to 2000, the incidence of Typhoid and Paratyphoid A, B, C has decreased in all Oblasts, with Tashkent City always recording the lowest. In 2000, incidence of Typhoid (/100,000) at national level was 0.7, Paratyphoid 0.1, showing no significant differences in any of the Oblasts.

#### **(2) Dysentery**

Year by year, the number of patients has been declining, yet in 7 Oblasts, incidence still marks two-digit number. The number of patients and incidence show the highest in Tashkent City, Tashkent Oblast and Ferghana Oblast; where sanitary environment and the quality of medical facilities are considered to be in adequate condition. It is possible to take preventive countermeasures, if regional difference in incidence can be attributed to environmental degradation by expanding population. In many medical facilities of local regions, sanitation facility, particularly restroom is extremely poor in condition; wash basin –faucet rarely supplies water. In contrast, it was impressive to see people wash their hands at wash basin before meal at the restaurant. However, very few public restrooms in the near area have flush toilet; even if these are flush toilets, no water is supplied; few wash-basin faucet is attached to the public toilet. In terms of sanitary condition, considerable gap can be observed between restrooms in private spaces and in public areas.

#### **(3) Viral Hepatitis**

The data of RIAC from 1992 to 2000 shows that high incidence of viral hepatitis was recorded every other year specifically from 1993 to 1997. In 2000, many Oblasts experienced higher incidence than the previous year. Most of them has been Hepatitis A. Overall, at national level, recent trend shows steady decline ; in most Oblasts, the rate raged from one third to one quarter of the period between 1993 and 1997, or the rate of increase was smaller than time and a half that of the previous year. Nevertheless, particularly in Tashkent City and Tashkent Oblast, increase rate indicates 2.9 times, 1.6 times respectively, and 1.7 times in Bukhara Oblast.

It is considered that Hepatitis A occupies the highest incidence rate among virus hepatitis.

Many in-patients observed at the time of visit were children on hepatitis A. Once or twice a year, Hepatitis A reaches epidemic proportions, bringing about more patients than the number of beds in hospital. Regarding Hepatitis B, the incidence has been steadily decreasing year by year, and the trend hebetates in recent years. However, it is notable that the incidence proliferated in Tashkent City and Bukahala Oblast in 2000 in comparison with the previous year. Since the cause of hepatitis B is non-oral infection such as medical practice or IV-drug using, it is important to investigate the cause of the rapid increase especially in Bukhala Oblast. This will also be helpful for preventing HIV/AIDS in the future. Vaccination against hepatitis B has recently started for all infants in cooperation with World Bank and some interviewee told the incidence has partly decreased. Therefore, good outcome would be promising, yet, age specific incidence rate should be further investigated.

Although laboratory tests for hepatitis C are carried out, but its quality is more or less questionable. This disease will become a serious issue due to lack of disposal syringe and needle.

A few cases of hepatitis E are observed, however, many cases may be overlooked due to current examination system and quality of clinical laboratory test.

#### **(4) Diphtheria, Whooping cough, Measles and Poliomyelitis**

These infectious diseases have been on steady decline for the last nine years; few cases were observed. This seems to be the outcome brought about by vaccination, matching with the present situation explained to the Study team at the medical facility. Vaccination program including hepatitis B needs to be continued, but this raises the issue of cost.

#### **(5) Tuberculosis (TB)**

According to the data of RIAC from 1992 to 2000, the incidence rate has increased since 1996 at national level and expansion of TB has become a serious issue in Uzbekistan. Karakalpakstan and Tashkent City have especially high incidence rate of 127.7/100,000 and 82.4 /100,000 respectively, and the incidence has been increasing in all other oblasts. And multi- drug-resistance tuberculosis is increasingly a challenge<sup>1</sup>. The number of beds for TB patients seems to be enough, however, it might be important to consider whether it would meet increasing incidence rate.

Since 1998, TB Research Center and hospitals have launched DOTS program, which is

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<sup>1</sup> World Bank and the Government of Uzbekistan, July 2002. Uzbekistan Living Standards Assessment: Health, Nutrition, and Population, Final Draft, p2

anticipated to be gradually expanded nationwide.

#### **(6) HIV/AIDS**

According to the AIDS Center of the Ministry of Health in Uzbekistan, as of 1 July 2002, the total number of HIV/AIDS patients in the country is 1,399, of whom 1,230 are men and 169 women. The incidence of AIDS shows an increasing trend. Surprisingly, this figure has doubled since 1 January 2002, when the official number was 779; of the 1,399 cases, over 1,000 are in Tashkent City and Tashkent region<sup>1</sup>. It is considered that one of the reasons for rapid increase of the incidence is due to improvement of clinical laboratory test in quality.

According to the official statistics, 70 to 80 % of HIV cases are represented by intravenous drug users<sup>2</sup>. When the Study team made a visit to National AIDS Center in May, the number of HIV carriers indicated was 1,700; in 2002, the number of carries among blood donors showed significant rise, from 7/100,000 in the previous year to 24/100,000. The Study infers expansion of infection in this country from this considerable rise in figure. Actual number of carries is presumed to be greater, as thousands of samples are still waiting to be given the final confirmation test.

#### **(7) Sexually Transmitted Infections**

Incidence of syphilis and gonorrhoea shows gradual increase at national level, particularly high in Tashkent City. This trend needs further concern in relation to HIV.

#### **(8) Other Infectious Diseases**

##### **1) Brucellosis**

As zoonotic infection, Brucellosis has been a concern at national level, especially among people in stockbreeding industry. Although effective vaccine has already been developed, vaccination is not universal due to its cost. Blood Center at Republican level conducts test particularly on blood sellers.

##### **2) Toxoplasmosis**

Infection from mother to infants is regarded as a great concern.

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<sup>2</sup> United Nations, 2001. Common Country Assessment of Uzbekistan, p36

### **11.5.2 Issues on Medical Treatment System for Infectious Diseases**

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 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.

### **11.5.3 Recommendation for Rational Medical Treatment System**

Consideration on above described situation suggests consolidation of specialized hospitals; it is desirable that these hospitals be merged into Oblast or Rayon central hospital, whereby efficiency of medical treatment is expected to improve. This consolidation integrates more medical personnel; including doctors specialized in infectious diseases, into one medical point, making possible more effective and rationalized treatment. Accordingly, clinical test will be centralized; thereby test results with better quality can be anticipated more promptly. Furthermore, it shall also contribute to the treatment of life style diseases, which will increase inevitably in the near future.

DOTS program has been promoted to cope with TB on the rise. Accordingly, TB hospitals shall be operated independently for the time being. However in the near future, as TB hospitals are relatively small in scale, they shall all be integrated into one TB hospital by each Oblast. Further, after giving a careful evaluation of the result of DOTS program, Oblast TB hospital shall be integrated into General Hospital as one of the departments.

**CHAPTER 12**  
**COMMUNITY PARTICIPATION**



## 12. COMMUNITY PARTICIPATION

In this section, qualitative review will be given on the ways community contributes to or puts impact on the people's interaction with health system in the country. The M/P needs to reflect beneficiary's point of view and needs; however, at the same time, it should also be sought as to how community can in return help improving the health system particularly at primary care level. In other words, 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.

First, brief explanation on Mahalla in general is given: its history, basic structure, its activities, followed by field research report with detailed description on several Mahallas in different regions.

(For one month period, 18 Mahalls in total were surveyed by actual visit or by sending a questionnaire.) This report will include how Mahallas have access to medical facilities such as SVP and polyclinic, and take initiatives to protect primary health of the citizenry. Next, the Mahalla Fund, a non-governmental organization created by the government, will be described as to in what ways they oversee and coordinate with Mahallas. Conclusions are drawn from these reports and survey results.

### 12.1 Mahallas

#### (1) Historical Background and significance

"Mahalla" in Uzbek means "community". A Mahalla is a traditional structure of community that has existed in the present territories of Uzbekistan and Tajikistan for as long as anybody can remember.<sup>1</sup> It embraces moderate Muslim culture and kinship; it is a community unit that is fundamental to the day-to-day life in Uzbekistan, serving as a means of surveillance, as a body of reciprocal support, and as an institution for the construction of national identity.

In 2002, Sievers<sup>2</sup> conducted a survey, asking slightly less than 2000 respondents in seven of

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<sup>1</sup> Ed Harris, 'Rural Mahallas and their Links to the Health System', Technical Report: Ferghana, Uzbekistan, (1999), 3

<sup>2</sup> Eric W. Sievers, 'Uzbekistan's Mahalla: From Soviet to Absolutist Residential Community Associations,' The Journal of International and Comparative law at Chicago-Kent, Volume 2, (2002), 123



Uzbekistan's twelve oblasts about the importance of Mahalla in their lives. Nationally, 57% of respondents classified Mahalla as essential to their daily lives. It shows the regional differences: In the city of Tashkent, the most Sovietized part of Uzbekistan, only 26% of respondents relied heavily on Mahalla. This is correlated with the historical development of Mahallas in urban areas. As mentioned, the Mahalla as an institution has existed for a long time, however; many Mahallas are in fact recent creations, particularly in large urban areas where they have taken over from the *domkom* or *housing committee* of big apartment complex. These Mahallas therefore lack any inheritance of a role based on traditional Uzbek culture.<sup>3</sup> Furthermore, in Karakarpakistan, Mahalla is not their tradition, rather a new feature, although there have always been somewhat similar naturally-occurring villages and groups of people. Apart from these areas, in the Syrdaryo and Tashkent oblast, 58% and 39% of respondents, respectively, relied heavily on Mahalla. In the Zeravshan Valley, both Samarkand and Bukhara oblast reported roughly 76% heavy reliance. In Ferghana oblast 89 % reported heavy reliance. Khorezm oblast in the north reported 86 % heavy reliance, and Kashkadaryo oblast in the southwest reported 51 % heavy reliance.

Since independence in September 1991, the Uzbek government has given more attention to the existence and role of Mahallas; they have been legitimized and given official status. Mahallas have taken a transformation from self-governing body to official administrative agent.

## **(2) Mahalla Structure**

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. Uzbek house usually holds more than one family; if the family has married sons, their families live in the same household. A person becomes a member of Mahalla by virtue of residency. No one is excluded because of one's nationality, religion, or financial status. People rarely move one Mahalla to another. Most probable case of changing the Mahalla is when woman weds someone in different Mahalla; she moves to husband's Mahalla.

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<sup>3</sup> John Micklewright, Aline Coudouel, and Sheila Marnie, Targeting and Self-Targeting in a Transition Economy: The Mahalla Social Assistance Scheme in Uzbekistan, Technical Report, (2002), 6

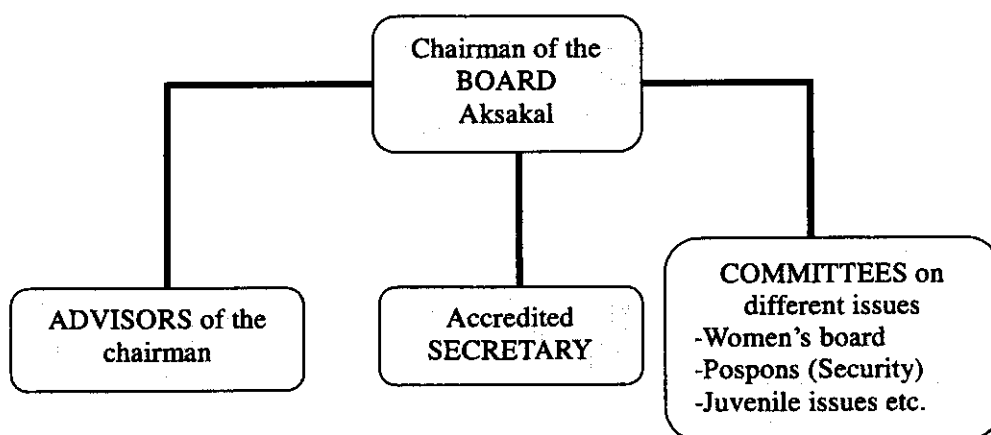
**Table. 12.1 Mahallas in Kibray Town (Tashkent Oblast) as of January 1, 2003**

#	Name of Makhalla	# of households	# of families	# of population	# of women	Children		School age children			Teenagers				Others		
						0-2 years old	3-6 years old	7-15 years old	16 years old		Children till 16	17-18		19-27		28-30 years old	# of Low-income families
									Girls	Boys		Girls	Boys	Girls	Boys		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	M.Ulugbek	385	560	1730	570	25	82	32	13	18	170	25	20	16	15	16	28
2	Zebuniso	676	710	2517	660	63	87	382	18	16	566	28	62	164	135	87	30
3	Yangiobod	565	638	3149	1143	79	240	239	109	105	772	104	118	88	99	53	40
4	Shodlik	294	501	1643	543	30	184	281	28	33	556	32	34	135	147	90	17
5	Beruniy	277	531	1476	395	47	17	158	9	7	238	12	13	53	54	43	24
6	U. usupov	106	111	497	122	20	52	134	8	7	221	8	5	12	19	40	15
7	G.Gulom	258	513	1437	410	23	156	388	5	11	583	24	23	74	115	618	43
8	Furkat	184	213	781	370	19	42	127	10	11	209	21	13	58	47	27	8
9	Sohibkiron	405	516	1723	615	36	66	249	20	14	385	41	33	84	110	48	55
10	Mustakillik	136	209	693	266	22	60	140	10	12	244	12	17	60	69	33	11
11	S. akhimov	52	78	228	115	7	20	22	2	1	52	4	4	19	19	12	6
	Total	3338	4580	15874	5209	371	1006	2152	232	235	3996	311	342	763	829	1067	277

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.

By law, Aksakal and Secretary are salaried positions. There are also a series of boards or commissions within the Mahalla and each Mahalla creates various commissions of its own. Commonly observed are: auditing, administration, security inspection, and women’s association.

Normally, Mahalla office is located in the midst of Mahalla area with rooms for Aksakal, Secretary, and sometimes even larger space for special event such as weddings and parties. In some Mahallas, they have Chaihana (Tea House) separately located, where they have a kitchen with utensils, and organize meetings and parties.



**Figure 12.1 Model Structure of Mahalla Board**

Activities in Mahalla vary:

- Preside over communal events
- Mediate conflicts between households, as well as family disputes within household
- Give social assistance to the needy
- Provide health and medical assistance
- Organize seminars and lecture on various subject
- Perform fund raising charities
- Communicate with other Mahallas

In addition to the above listed, Mahallas have been tasked with assisting tax and utilities fees collection, and an incentive structure has been established in some regions to encourage this. 17 out of 18 Mahallas responded to our hearing survey that these tasks have

practically been put into operation and routinely performed. Incentive structure was also evidenced in Nukus area through the interview with an official.

### **(3) Budget**

The principle sources of income for one Mahalla are; budgets from the government, social and charitable funds, farms and businesses situated on the Mahalla territory, and voluntary donations and the Mahalla Fund. Monthly salary for Aksakal is on average 18,000-50,000 sums; annual budget for one Mahalla, including utilities fees ranges from 2 million to 3 million sums, though it varies depending on financial status of each Mahalla.

The Mahallas receive funds for social assistance almost entirely from central government. Funds are distributed at the beginning of the year by the Ministry of Finance through its oblast and rayon offices to saving banks accounts held by each Mahalla.<sup>4</sup>

Voluntary contributions are encouraged and can also be made by enterprises and individuals, often the rich, to the Mahallas and are tax deductible up to a ceiling.

## **12.2 Social welfare**

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.<sup>5</sup> 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.<sup>6</sup>

Our hearing survey supports that the assistance system is practically in place: 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. In case for invalids, war veterans or other needy categories, some Mahallas do provide welfare money on a monthly basis, while some do not distribute at all. This inequity in assistance

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<sup>4</sup> Ibid.<sup>7</sup>

<sup>5</sup> Eric W. Sievers, 'Uzbekistan's Mahalla: From Soviet to Absolutist Residential Community Associations,' *The Journal of International and Comparative Law at Chicago-Kent*, Volume 2, (2002), 142

<sup>6</sup> Ibid.

allocation seems to be largely attributed to the financial status of each Mahalla. Only Mahallas, which are financially abundant with voluntary donations, are capable of distributing more allowance to the residents in need.

### **12.3 Field Study in Mahallas**

Every Mahalla is different in its size, activities, residential atmosphere and accessibility to health facilities. Below is the brief description of several Mahallas, including major interaction with nearest medical clinics and activities performed on their own initiatives. The names of Mahallas are kept anonymous for confidentiality.

#### **(1) Altyaryk Rayon, (Ferghana Oblast)**

This agrarian Mahalla is, located 50-60 km from the city. The number of households is approximately 500; more or less making their living by growing grapes and vegetables. The size of land of one household is approximately 1,000 -1,500 square meters; a typical household has an atrium, surrounded by a kitchen and individual rooms with a latrine separately located outside. In the back yard, they grow grapes, several kinds of vegetables, and do cattle breeding. They usually have additional plots elsewhere in the village, where they cultivate more vegetables for market. Each household has TV, telephone, gas and electricity.

There is a two-story SVP just in front of the Mahalla office. According to the Chief Doctor, this SVP has the disease record of almost all the Mahalla residents. They conduct medical check-ups for residents regularly.

#### **(2) Tashkent City**

Population: 4,600

Household: 997 (1,280 families)

Deputy Director of Women's Board is a chief nurse at the nearby medical facility "#3Polyclinic", and some doctors living in this Mahalla are also the members of Women's Board. This situation, according to Aksakal, luckily makes his Mahalla easier and responsive to monitoring the health status of the population. Mahalla office provides a room when medical check ups are given for the residents, as well as when consultations take place for women.

Aksakal emphasizes that this Mahalla is ran 90 % independently from the government in terms of finance; foreign investors and enterprises donate considerable amount of money

every year and occasionally upon request. In addition to one Chaihana that already exists, with free labor from the residents and financial support from the enterprises, they are building new Chaihana.

"#3 Polyclinic" was built with planned capacity of 200 patients a day, but the actual number of patients' visits turns out to be 80-100 a day; they provide services including vaccination and home visit free of charge. This clinic has two branches covering 10 Makhallas, with two pharmacies in close proximity. Regular medical check ups are given to infants, children, and pregnant women are periodically monitored.

### **(3) Chilonzor District, Tashkent city**

Population: 4,500

Household: 1,900 (2,100 families)

This Mahalla encompasses 280 Uzbek style houses with 320 families and 25 multiple-story building with 650 apartment rooms. The area has 12 streets; for each street, a street coordinator is designated. There is an orphanage, to which this Mahalla often gives support and attention.

The nearest medical facility "#29 Polyclinic" was established in 1965, covering three other Mahalls, with the total population of 25,000. They assign doctors by streets, and provide in-house medical treatment upon request call. One month preceding our visit, medical check ups were given for female residents of this Mahalla.

Their Women's Board is staffed with 36 members. The Board makes sure that decent attention is paid to the invalids and low income families, and supervises the kinder garden in the vicinity twice a month whether the school meals meet the requirement of nationally recommended calories intake.

### **(4) Kibray Rayon, Tashkent Oblast**

Population: 781

Households: 184 (families 213)

Rayon Polyclinic and Hospital are located in walking distance; the furthest medical facility is 1.5 km away. In the vicinity, there is also a rehabilitation center for women with infertility. Every year, this Mahalla gives general free medical checkups for all residents, and periodically monitors newborn babies and infants. Seasonally, they give certain medical services: in fall, seminar for marrying couples: in summer, acute intestinal diseases. Seminars for school girls and women at fertility are also organized, and as part of social assistance, make home visits to lonely pensioners.

**(5) Keratay Rayon (150km from Nukus), Republic of Karakalpakstan**

Population: 2,480

Household: 480

The nearby macadam factory supplies jobs to the population; however 20-30% of the population is still unemployed. In the midst of the deserted land, the residents are heavily burdened with severe living environment and scarcity of almost everything: they have no gas (because it is not affordable, many households choose to use fire woods instead); a telephone in the Mahalla office is the only set available; meat is rarely on the table.

A polyclinic equipped with 25 beds and two doctors, GP and pediatrician, is 3 km away from the village. Because there is no piped water or well, water is transported periodically and kept in the underground storage jar outside. Drugs and injections are sparsely displayed in the shelf. No regular medical checkups or monitoring for pregnant women are ever given; only when the childbirth is finally due, they go to the hospital in Nukus and deliver. Furthermore, women who were present at the interview firmly responded that they would never take children under five years of age to medical facility for the simple financial reason. Within the vicinity, it is practically impossible to obtain necessary drugs; the patients need to drive 150km to the pharmacy in Nukus.

**(6) Mahalla "Ayron Tepa", Toytepa Rayon, Tashkent Oblast**

Population: 517

Household: 485 (517 families)

Due to the limited budget, no salary is paid to any position in the Mahalla office, not to mention to Aksakal himself. They have one SVA that covers other four Mahallas. Doctors make home visits but supply no drug; therefore patients always have to go to the pharmacy. Social assistance money goes to low income families and other needy category, although no initiative is taken for maintaining residents' health: medical checkup is not given; pregnant women are not monitored; seminars on health issues never take place. Overall, institutionalized effort is hardly being made to improve living environment.

**12.4 Mahalla vis-à-vis health facilities and care**

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, Polyclinic 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. 16 out of 18 Mahallas confirmed that in the first half year of 2003, medical check up service was provided for residents by either using the rooms in Mahalla office or at the nearest medical facilities. Likewise, 17 out of 18 Mahallas responded that last year they organized seminars or lectures on the subject of public health for at least once, although the number of attendance is unknown.

However, both the Baseline survey and our hearing survey reveal that 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. (More detailed description is given in Drug Supply Logistics, Chapter 9)

It also became apparent through the survey that financial stability dominates the quality and frequency of services provided by Mahalla. Community's initiative is highly susceptible to its financial status. In other words, there is a wide gap between the haves and have-nots. Only the communities with wealthy enterprises or frequent voluntary contribution enjoy active health services and take initiatives in making the living environment better.

## **12.5 Mahalla Fund**

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.

In contrast, the Mahalla Fund is a non-governmental organization, ran by donation in principle. Their historical development and roles are explained below.

In 1992, by the Presidential Decree, the government created the Mahalla Fund. Its fund started with considerable amount of money transferred from the government, but now in



principle ran by donation. Their mission is to coordinate Mahalla, conduct research on Mahalla, and pioneer the explication of Mahalla as the fundamental components of Uzbekistan's transition to democratic civil society.<sup>7</sup> One official added that they focus to help Mahallas in need, support low income families, learn best practices and transfer them to other Mahallas. Their office has 700 workers in total; at each oblast level 5, at rayon level 3. Their day- to- day activities vary. The Fund often organizes charity, sport competition for children, intermediate between Mahallas and Hokimiyat. In fact, on 2003 March 15, the Fund organized nationwide event to call for donation and earned 20,000 US dollars, with which sports complex and various buildings were constructed.

Bureaucracy obscures the roles and jurisdiction of the Mahalla Fund. Some of their tasks overlap with those of Hokimiyat, and sometimes necessary information is not shared between the two. As this has been raised as an issue hampering the smooth coordination among Mahallas, Hokimiyat and the Mahalla Fund, a measure seems to have been taken: one official informed us that the new law is planned to enact in autumn at national level, delineating roles of Hokimiyat and Mahalla Fund for better organization. Streamlining of their tasks is expected to occur.

## **12.6 Conclusion**

- (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.

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<sup>7</sup> Ibid., 122

- (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.

