



Rapid Assessment of the State of Reproductive Health Services in the Republic of Tajikistan

(October/November 2000)

**United Nations
Population Fund
UNFPA**

**Ministry of Health of
the Republic of
Tajikistan**

**Reproductive Health
Programme
World Health Organization,
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ABSTRACT

The overall goal of the present survey is to determine the current situation in reproductive health care in Tajikistan, including its facilities, staff potential, equipment, drugs/contraceptives availability, service scope and quality. The survey also covers causes of maternal, perinatal and infant mortality, use of contraceptives and abortions, and analyses trends in these indicators over time. The Rapid Assessment was conducted by regional teams in 2471 health facilities in all the regions of the Republic of Tajikistan, using a nationally adapted version of the WHO Safe Motherhood needs assessment and the WHO/UNICEF/UNFPA assessment tool for facilities offering Essential Obstetric Care.

Reproductive health care in the Republic of Tajikistan is provided within a four level system from local to national level. The survey reveals that reproductive health facilities in the country are not functioning adequately due to limited budgets and an insufficient staff training policy, and are thus not able to respond appropriately to the urgent needs of the population. Reproductive health facilities experience shortage of both obstetrician/gynecologists and midwives. There is a clear staffing discrepancy between reproductive health facilities of different geographical areas, and a need for staff training and reinforcing the system of continuous post-graduate training. Management information systems do not reflect the use of appropriate reproductive health indicators.

The rapid assessment revealed that in the majority of cases bed capacity in the health facilities is used only to 50-70%, and analyses the reasons. Reproductive health facilities are in urgent need of essential medical equipment, with only between 12.6% to 67.1% of essential equipment and essential drug needs being covered, indicating a broad variation in the level of quality of care. In terms of family planning needs, available resources allow to cover only 0.7% of reproductive age women with contraceptives, which meets less than 15% of annual country needs. Abortion therefore remains a main method of fertility regulation.

The rapid assessment is meant as a tool for donor agencies and policy makers who would like to support the improvement of Reproductive Health Care in Tajikistan nationally or in specific geographical areas.

Keywords

HEALTH CARE SURVEYS
FAMILY PLANNING SERVICES
REPRODUCTIVE MEDICINE
CONTRACEPTION
HEALTH FACILITIES
MATERNAL WELFARE
TAJIKISTAN

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ABBREVIATIONS

IUD - intrauterine device
WHO - World Health Organization
GDP- Gross Domestic Product
IPD – Inflammatory Pelvic Diseases
HIV - Human Immunodeficiency virus
GBAO- Gorno-Badakhshan Autonomous Oblast
VSS – Voluntary Surgical Sterilization
AC- Antenatal Clinic
STI – Sexually Transmitted Infections
GTI – Genital tract infections
IC- Injectable contraceptives
HDI – Human Development Index
MM - Maternal Mortality
HH- Health House
SRCoOGP- Scientific-Research Center of Obstetrics, Gynecology and Pediatrics
GFR - General Fertility Rate
OC - Oral contraceptives
PM - Perinatal mortality
RH - Reproductive health
RB - Reproductive behavior
RRS- rays of republican subordination
RT- Republic of Tajikistan
AIDS – Acquired syndrome of immunodeficiency
CRH (CRB) - Central Rayon Hospital
RHC -Reproductive Health Center
EGD- Extra-Genital diseases
ENC- Essential Newborn Care
RCH (SUB) – Rural Catchment Hospital
RDA (SVA) – Rural Doctor Ambulatory
TMIPDT- Tajik Medical Institute of Post-graduate Training
TSMU- Tajik State Medical University

Background

The changes that have taken place in MCH state policy in Tajikistan in 1990s deserve close attention. The country has gone through the hostilities of the 1992 Civil War and, regardless of difficult social-economic conditions, has been persistently striving to achieve positive changes in terms of legal and social-economic conditions of women and children, and to improve social status of women. International conventions “On the Rights of the Child”, “On the Elimination of All Forms of Discrimination Against Women” and “On Political Rights of Women” and others were ratified in 1990s.

His Excellency, the President of the Republic, E. Sh.Rakhmonov has issued a special Edict “On Measures Aimed to Improve the Social Status of Women”, which is being implemented. Commitments coming out of the Beijing Platform of Action and Declaration, International Conference on Population and Development are also being implemented. Targeted national programs in the priority areas of mother and child health care have been developed and approved. These programs are supported by the Government as well as by its international partners.

Family, marriage, motherhood, fatherhood and childhood are under Government protection in the country. Mother and child enjoy special protection from the state as well.

Family legislation is based on the need to reinforce family values, on mutual love and respect, mutual assistance and responsibility of all the family members for its integrity. It prohibits any arbitrary interference into family affairs, to give opportunity to all the family members to enjoy their rights and fulfill their duties while being protected by the judicial system.

In the space of many years, large families were a tradition for the indigenous population. This is an important factor, which influences intimate relations, distribution of roles and duties within the families and determines the size, growth, structure and migration of the population.

A high birth rate was especially characteristic for the pre-transition period. It is closely linked with the health status of population sub-groups, in particular that of women and children. The transition period is characterized by a consistent trend to a decreased birth rate, which determines decrease in maternal, infant and child mortality rates. At the same time, this trend could be attributed to positive changes in the national policy and strategy in the field of mother and child health care as well as in the health care of the population on the whole.

The National Health care strategy is based on the WHO Health for All Strategy, which calls for concerted efforts on the part of all sectors, for a fair distribution of health resources. It also requires coordination efforts and mobilization of community support, as well as direct participation of the community.

However, issues related to the health of the people, and specifically to that of women and children, remain a cause of deep concern in the country. The demographic situation in the Republic deserves serious attention. Within the general health framework reproductive health represents a very important problem. Given this fact, the strategy aimed to improve reproductive health and to ensure access to family planning services is considered to be a key direction of the national health and quality of life

improvement policy. Some progress has been achieved in this sphere in the 1990s with the support of the international community. At the same time current problems require further targeted complex actions, including measures in the health sector.

In this respect, the results of the Rapid Assessment of the current reproductive system in the country, conducted with the support of UNFPA and WHO within the framework of Project TAJ 02/01/02 are very useful. This project titled “Reinforcement of the Managerial Potential of the Ministry of Health and National Reproductive Health Center as well as the Development of reproductive health Management Information System in the Republic of Tajikistan” resulted in the formulation of evidence-based conclusions and recommendations for the policy and strategy development, for coordination of activity in the field of reproductive health based on a system survey analysis.

The Ministry of Health of the Republic of Tajikistan is very grateful to United Nations Population Fund and the World Health Organization for the assistance in carrying out this survey, for their general contribution into population reproductive health improvement. My sincere gratitude goes to all those who took part in the development of the present document.

The health sector in the Republic of Tajikistan strongly hopes that this survey result will receive the attention of the international community and will ensure its further support in improving the reproductive health of the population in the Republic of Tajikistan.

**Министр здравоохранения
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А.А. АХМЕДОВ

Summary

The Republic of Tajikistan is situated in the southeastern part of Central Asia. It is a typically mountainous country. The capital is Dushanbe. The population is 6.187 million people. Women of reproductive age make up 24%, and adolescents 50% of the population. During the 1990s the situation in the country was characterized by the decrease in the birth rate, general mortality and natural growth rates. However birth and natural growth rates are still considerably higher than the same indicators in other countries of the WHO European region.

The overall goal of the present survey is to determine the current situation in the reproductive health sphere, including its facilities, staff potential, equipment, drugs/contraceptives availability, service scope and quality. The Rapid Assessment has been conducted in 2471 health facilities in all the regions of the Republic of Tajikistan.

Care in the sphere of reproductive health in the Republic of Tajikistan is provided in line with a four level system:

- 1) In rural area in HHs, SVAs and SUBs,
- 2) In rayon centers and towns, CRH, general rayon hospitals, maternity hospitals, centers and towns, RHC and antenatal clinics
- 3) In oblast centers – oblast hospitals, maternity departments, RHC
- 4) On the national level coordination functions are performed by the republican clinics – SRCOGP and NRHC

A network of reproductive health facilities is able to render health services at all the levels provided they have adequate staffing, technical bases, equipment and supplies. Reproductive health facilities in the country are not functioning adequately due to limited budget and financing, thus limiting access of the population to these services.

Rapid assessment revealed that, in the majority of cases, bed capacity in the health facilities is used by 50-70%. One of the reasons for this is the shortage of drugs and supplies, which in turn is determined by the limited financial resources allocated to the hospitals. On top of this, people have poor access to transportation means, including sanitary ones, and to communication means. Reproductive health facilities are badly in need of medical equipment. Health houses of the Republic are provided with only 12.6% to 67.1% of essential equipment. It was found that the supply of different means of infection prophylaxis, diagnostics and treatment is very low in all the health facilities. Besides that, survey findings proved that the supply of medical equipment differs in different levels of reproductive health facilities and ranges from 9.8% to 100%. This means that reproductive health facilities need to be upgraded at practically all levels.

As for staffing, the reproductive health facilities experience shortage of both obstetrician-gynecologists and midwives. On the whole their number in the country amounts to 82.2% and 82.5% of requirements. Also there is a clear-cut staffing discrepancy between reproductive health facilities in different geographical areas. There is a need for changing the policy of staff training and reinforcing the system of continuous post-graduate training of specialists while developing flexible ways of formal post-graduate education.

The situation with respect to drug supply in the maternity hospitals of all levels in the Republic could be characterized as very poor. This results in a delay in the clinical management of emergencies, contributing to high maternal and perinatal mortality rates. Available resources cover only 0.7% of reproductive age women with contraceptives, which is absolutely insufficient because it meets less than 15% of annual country needs. The improvement of the supply of reproductive health facilities with drugs and contraceptives, and the improvement of staff training will ensure better access of the population to qualified health care.

In the Republic of Tajikistan 60.4% of pregnant women suffer from some extra - genital diseases of which anemia is responsible for 85.3%. High mortality rate figures are to be found in all the regions of the country, while within the structure of maternal mortality causes the most prominent are obstetric hemorrhages, eclampsia and its complications, extra genital pathologies and septicemia.

Leading causes of infant mortality are respiratory conditions (39.5%), parasitic and infectious diseases, including diarrhea (25.4%) and perinatal period diseases (17.9%). Rapid Assessment results for 6 months of the year 2000 confirmed high level of perinatal mortality rate in the Republic, which makes up 16.3 per 1000 live births. The analysis of the structure of perinatal mortality in the Republic revealed that more than half of fetuses die in the antenatal period (54.8%); intranatal and post-natal mortality rates make up 17.7% and 27.5% accordingly. The introduction of unified antenatal care standards and the provision of urgent help in cases of obstetric and perinatal pathology will make it possible reduce down maternal and infant morbidity and mortality.

In Tajikistan, abortion is still a widely used way of birth control, though there is an obvious tendency to its decrease. For the period of 6 months of 2000 the Rapid Assessment showed its number to be 1.5 times higher than the formal data and makes up 144.5 per 1000 live births, abortion incidence among adolescents is 4.3%. The high incidence of induced abortion in the first trimester of pregnancy (48.3%), and pregnancy termination rate on the grounds of medical and social indications indirectly prove limited access to modern contraceptives.

The survey revealed that reproductive behavior of women has changed in recent years. In 1975 the Total Fertility Rate was 6.3, but Rapid Assessment outcomes show that it has gone down to 3.1. Poor coverage of "high risk" women with contraceptives is determined by the shortage of contraceptives themselves. Among women who use contraceptives, 35.7% are patients with extra genital diseases, 26.8% are women with some obstetric problems in their history, 25.2% are multiparous women, 16.0% are women with birth spacing of less than 2 years, and 3.5% are women with frequent abortions. Though the number of abortions among adolescents is growing, still contraception prevalence among them is insufficient (6%). The rate of postpartum and post abortion contraception is low (16.1%). This is very much characteristic for the Republic. An increase in contraceptive resources will make it possible to improve the situation with contraceptives for postpartum and post abortion women as well as for women with extra genital and obstetric pathology. Dissemination of knowledge related to reproductive health among adolescents would reduce unwanted pregnancy prevalence in this age group.

The high effectiveness of a breast-feeding program is ensured by "Baby Friendly Hospitals". Four maternity hospitals in Tajikistan have been certified as Baby Friendly.

Review of data received shows that there is a considerable shortage of different essential forms of medical documentation in all the health facilities, amounting to 31.2%-84.6%, while their quality is very low. Current standard medical forms do not reflect all the essential indicators adequately, though

these indicators are important because they help to realistically assess reproductive health of the population. Elaboration of the currently used forms will make it possible to objectively assess and manage the reproductive health situation.

Rapid Assessment determined that about 60% of all the pregnant women are covered by antenatal care; among them 45% are registered in health houses, SVA and SUB. Registration at an early gestational age makes up only 11%, which is one of the factors of late diagnostics of complicated pregnancy. Only 14.1% of the health facilities have the possibility to determine hemoglobin level due to the lack of hemometers and 67.1% are able to carry out quality control of arterial pressure. The rest of the health facilities monitor only systolic pressure because of the lack of stethoscopes. Ferrous sulfate preparations are available only in 76% of health houses, in 75% of SVA and SUB, and 68% of rayon and city facilities. Low level of knowledge on the part of the population as to the importance of early antenatal care, to the first signs of pregnancy complications, limited access to health care services, insufficient measures taken by the health workers in order to detect pregnant women at an early stage, determine low level of registration and prophylactic medical examination.

More than 51.5% of pregnant women in the Republic of Tajikistan belong to the “high risk” group, while antenatal hospitalization rate in the rural area is from 1% to 2% and from 8% to 10% in the urban area. Low quality of antenatal care is responsible for late and poor quality detection of “high risk” pregnant women.

The increasing rate of home deliveries is a growing problem in the present situation. In some regions of the Republic it is up to 80%. The survey results show that out of the total number of deliveries home deliveries account for up to 90% in the rural area, up to 40-50% - in the rayon centers and up to 20% in urban areas. It has been determined that within the underlying reasons of home deliveries economic factors play a key role (36.1%), lack of transportation (25.3%), obstetric reasons (20.2%), other (18.4%). Lack of medical documents on home delivery management does not make it possible to analyze the degree of their safety and make judgment as to the realistic indicators of reproductive losses, though every third delivery takes place at home.

Due to Rapid Assessment it has been determined that during 6 months of 2000 there were registered 62680 deliveries, and complicated delivery incidence in the Republic made up 16.5%, in the regions - from 12.9% to 32.3%. Basically, pregnant women and those in labor with different types of complications are registered in almost all of the maternity hospitals and wards; the largest number of them are registered in CRH. Within the structure of these complications there are the following: extra-genital pathology (60.4%), eclampsia (11.3%), obstetric hemorrhages (4.1%). This is true for all the regions.

Worn out equipment and shortage of essential drugs in the reproductive health facilities of all the levels do not allow to render timely and good quality health care services.

Intensive and resuscitative care of newborns is very much limited due to the lack of incubators in more than 81.7%, perfusors in 76.1%, beds with warming up in 63.4%, pediatric oxygenators in 9.8% of the Republic's hospitals. The majority of the postpartum departments and wards practice rooming-in, while early attachment is done in all the maternities. Thus, improvement of training and personnel distribution, provision of medical equipment, drugs and contraceptives, introduction of unified approaches to case management will make it possible to considerably improve quality and effectiveness of obstetric and gynecological care in reproductive health facilities at all the levels.

1. Introduction

The Republic of Tajikistan is situated in the southeastern part of Central Asia. In the East and North it borders on the Republic of Uzbekistan and Kyrgyzstan, in the South on the Islamic Republic of Afghanistan and in the East on the People's Republic of China. The capital of the country is Dushanbe.

It is a typical mountainous country with the height of the peaks ranging from 300 to 7494 meters. These mountains constitute the highest mountain system in Central Asia (Tian Shan, Pamier-Darvaz and Altai). The climate is continental ranging from + 50°C in summer to -50°C in winter, depending on the diversity of altitude area. The population density is 43.2 people per square kilometer. In the former years the Republic was a part of the USSR and after its disintegration in 1991 it acquired its independence. The number and structure of the population are reflected in Table 1.

Table 1

Structure and number of the population in the Republic of Tajikistan

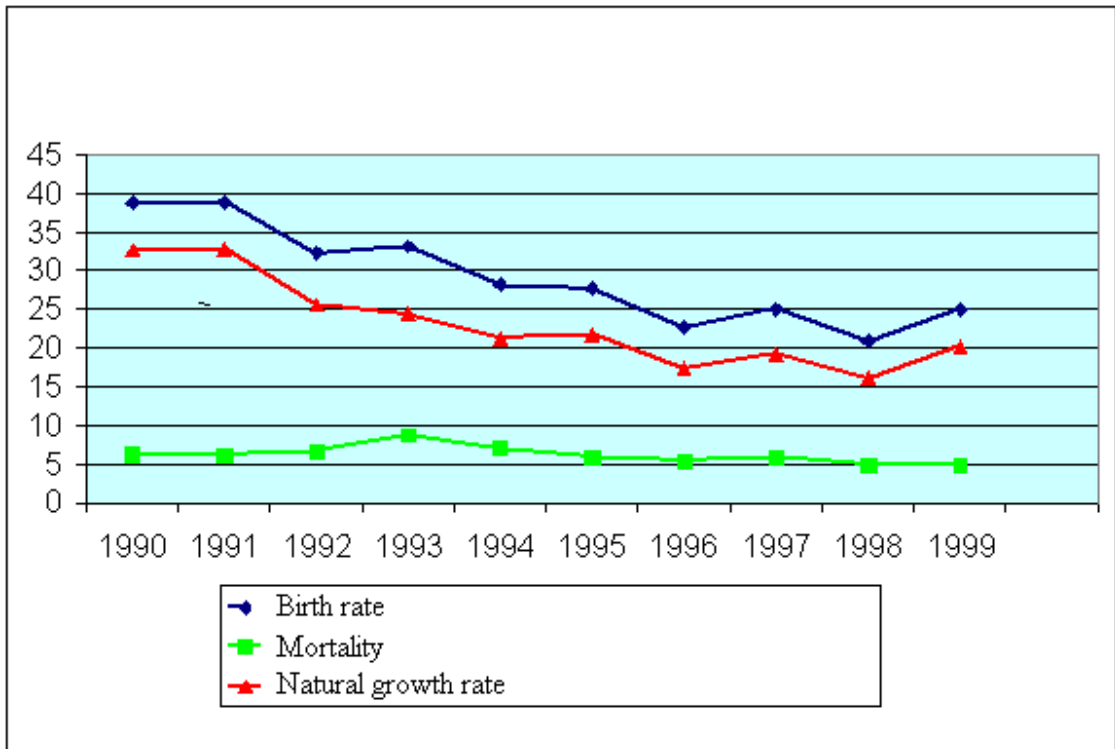
Structure and number	1998
<i>Population (actual) in mln</i>	6187.8
<i>Population (registered) at the age of:</i>	
0-14%	42.3
0-18%	50.0
60 and more %	6.1
65 and more %	4.1
fertile age women, %	24.0
urban population, %	26.6

Source: State Statistics Agency 1999

The 1990s in the country were characterized by the trend to decreased births, general mortality and population natural growth rates (Figure 1)

Figure 1

Dynamics of some of the demographic indicators in the Republic of Tajikistan for 1990-2000 (per 1000 of the population)

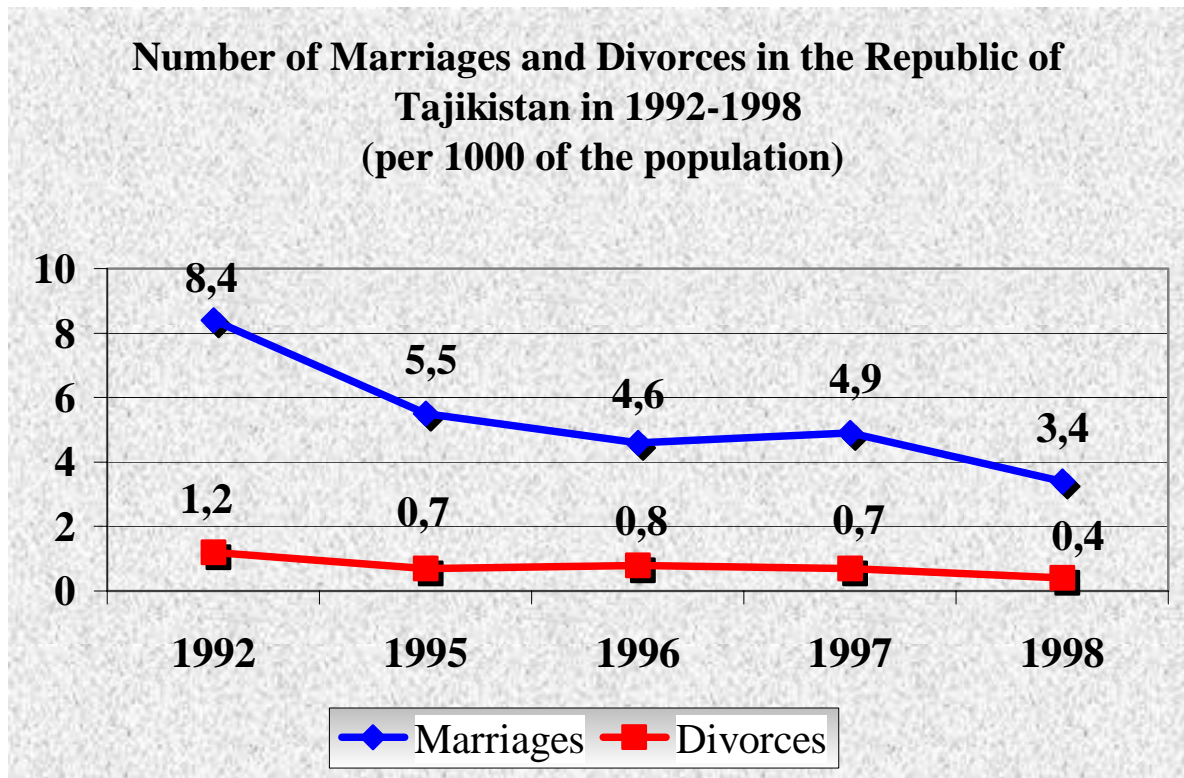


Source: Republican Center of Health Statistics and Information, Ministry of Health of the Republic of Tajikistan, 2000

However birth and natural growth rates are still considerably higher than the same indicators in other countries of WHO European region.

Since 1990 the number of registered marriages and divorces has gone down (Figure 2).

Figure 2



Source: State Statistics Agency, 1999

This phenomenon could be determined by the lack of proper registration system as well as by a number of social and economic factors. This problem needs to be studied.

The Republic of Tajikistan is a sovereign, democratic, legal and unitary state, whose policy is aimed at creating such conditions that would ensure adequate life and free development of people.

Tajik is the state or national language in the country. However all the nations and peoples living in the country have the right to freely use their native language. Russian is the language of interethnic communication.

In line with the Constitution of the Republic (1994) life, honor, dignity and other natural human rights are inviolable. Human rights and freedoms as well as the citizen rights are recognized, observed and protected by the state.

Mazhilis Olee – the Parliament of the Republic of Tajikistan is the highest representative and legislative body.

The President is the head of the State and of the executive power (the Government). As of 1996 the country situation was characterized by the progressing decline of GDP, the growth of budget deficit and by the dramatic inflation growth. All these had a serious negative impact upon economy and, naturally, reflected upon the social sphere, including health care, life standard and health (including reproductive health) of the population.

In 1997 for the first time in the history of the independent state there was some GDP growth. Thus in 1992 GDP, in proportion to the previous year, made up 67.7, in 1995 - 87.6, in 1996 - 83.3, in 1997- 101.7 and 1998 -105.3. 1998 was very important in terms of economy formation, when the mid-term program of economic reform was passed and entered the stage of its implementation with financial support of international organizations.

State policy in the field of health care has undergone considerable changes regardless of huge social and economic constrains. For example Tajikistan ratified important International Conventions in the sphere of human rights, Convention on the Rights of the Child, On Elimination of All Forms of Discrimination against Women, Convention on Political Rights of Women, which have a tremendous significance in terms of health care. Alongside with all these key documents concerning health care of the people, like "The Strategy of the Republic of Tajikistan in the Field of the Health Care of the Population until 2005" (1997), Laws on State Sanitary Surveillance (1994), On Donor Blood and Its Components (1994), On the Health Care of the Population (1997), Concept of Medical and Pharmaceutical Education Reform (1996) and etc. have been passed.

It should be mentioned that health services have been going down over the course of these years as a result of economic crisis. Poor financing has become one of the key factors predetermining decline in the activity of health facilities and deterioration as to the use of these services by the population.

In 1999 World Health Organization supported setting up special groups on health (Samonee) and pharmaceutical sectors reforming in Tajikistan. That was a starting point of a process, which included in depth analysis, situation assessment and development of the first political document on the health sector reform, the Draft Program of Health System Reform for the period of 2000-2010. The Program has been developed based on the identified priorities, the most important of which is primary health care. Primary health care reforming is based on the concept of a family doctor (general practitioner).

It should be pointed out that the health status of the population of Tajikistan in many respects is determined by the outcomes of the civil war, which took place in 1992, by the peculiarities of social and economic situation in 1990s, especially until 1996. This is specifically expressed in the predominant role of those conditions that are determined by the negative factors of environment and every day life (infectious diseases, including malaria, tuberculosis as well as acute respiratory infections and diarrhea), including nutrition related problems (iodine deficiency, anemia).

The 1992 civil war reflected upon average life expectancy indicator (ALEI), which has gone down from 69.7 in 1986 to 68.3 in 1995. The following years revealed the tendency to increase of this indicator (in 1998 ALEI was estimated as 68.4 years).

In Tajikistan cardiovascular diseases are the most frequent cause of mortality both in the age group up to 65 and in older groups; diseases of respiratory organs are next to this group, followed by accidents and other external factors.

The health of children, adolescents and women deserves special attention. Within the structure of a high morbidity rate among children, the leading causes are acute respiratory infections, infectious diseases, endocrine system problems and malnutrition (mainly those related to iodine deficiency), skin and subcutaneous tissue problems, traumas and poisoning; among adolescents these causes are acute respiratory infections, endocrine system problems and malnutrition (mainly those determined by iodine deficiency), infectious diseases, traumas and poisoning.

Infant mortality rate, though decreasing, is still higher than in the majority of the European countries. Among major causes there are acute respiratory infections, including pneumonia, diarrhea and perinatal period conditions.

The most widely spread problems in women are infectious diseases, anemia, blood system problems and endocrine pathology (mainly iodine deficiency), which in pregnant women could be diagnosed in 70% of cases.

Reproductive losses are high too. Specifically maternal mortality rate is three times higher than the average European indicators. Leading causes of mortality are hemorrhage, eclampsia and extra-genital diseases. Despite the tendency to decrease, perinatal mortality indicators remain high.

During 1990s abortion rate (per 1000 live births) has gone down by 2.4 (indicators have been given in the corresponding sections), however women still depend upon abortions very much, which is due to the current problems of access to information, counseling and other family planning services. A survey carried out with the help of anonymous questionnaires among women of Khatlon oblast in 1998 revealed major reasons for abortion: difficult social and economic conditions (56.2%), enough children in the family (34.3%), lack of adequate information (5.2%) and access (3.1%) to contraceptives, alongside with negative attitude to them (1.2%).

In recent years STIs are becoming a growing problem. This pathology has been revealed in 36.5% of examined women, among which 25.3% had trichomoniasis, 17.3% - candidiasis, 14.9% - chlamydia, 5.2% - gonorrhea, 5.6% - syphilis and etc. Because of the poor knowledge on the part of the population as to the prevention of these diseases, housewives account for a high incidence (31.4%).

Reproductive health improvement and access to family planning services constitute key strategies designed to improve the quality of life on the whole, maternal and child health in particular. The Government of the country and health sector with the support of the international community (WHO, UNICEF, UNFPA, international NGOs and donor countries) has undertaken serious efforts and activities in 1990s in order to improve reproductive health. The beginning of such a strategy formation and implementation was the WHO intersectoral Mission, which took place at the request of the Ministry of Health of the Republic of Tajikistan in August 10-18, 1993. Since 1994 it has become a practice to develop and implement National and sector mid-term and long-term programs in all the priority areas of maternal and child health.

In conformity with the Mission's recommendations, urgent measures have been taken to deliver contraceptives and drugs as a humanitarian aid to prevent and manage anemia among reproductive age and pregnant women, as well as training materials to train health workers and to educate population in the field of reproductive health and family planning and etc.

Joint projects of UNFPA and the Government of the Republic of Tajikistan have been undertaken since 1996 – “Expanding access to information and family planning services”, “Improvement of Reproductive Health System and expanding access to Family Planning services”, “Information and education links, policy in the field of population in the Republic of Tajikistan”. During 1996-1999 there appeared the first management bodies in the field of population and development, and also in demography (Commission on Population and Development under the Government of the Republic of Tajikistan; Demography Center under the Academy of Sciences of the Republic of Tajikistan). Within the Ministry of Health there is also reproductive health and family planning department. Considerable

changes have taken place in terms of training and retraining health personnel in the field of reproductive health and use of modern contraceptive technologies; new curricula have been devised and implemented. Presumably the knowledge of the people as to family planning as well as the number of contraception users will grow as a result of the activities carried out.

In 1999 the Government of the Republic of Tajikistan passed the National Program “Reproductive Health and Reproductive Rights”, which is to be implemented in the year 2003.

In order to continue successful implementation of projects on reproductive health and family planning there are the following resources: political support, legislative basis, medical education that is being reformed at present, nursing, primary health care, high commitment on the part of health sector and support of international organizations.

On top of that there are certain resources on community level, like commitment to look for health services, high literacy level of the population, openness to different type of information and to contraceptive help, commitment to breastfeeding, sources and channels of getting information, women’s movements and etc.

With this background and given reproductive health and family planning problems, on November 18, 1999 UNFPA and the Government of the Republic of Tajikistan signed a new Country Program for the coming four years, which consists of the following sub-programs: “Population and Development Strategy”, “Promotion” and “Reproductive Health”.

The present “Rapid Assessment of the Current Reproductive Health Care Situation in the Republic of Tajikistan” has been done as part of the aforementioned sub-program.

2. Methodology

The success of the implementation of the Project Tadj 02/01/02 “Reinforcement of the Managerial Potential of the Ministry of Health and the National Reproductive Health Center and Development of Reproductive Health Informational System” will be evaluated on the basis of a number of goals set by the International Conference on Population and Development and on the basis of indicators, reflecting the improvement of the people’s health and the health system itself.

There is a possibility to improve the health of women through a more accessible, available and inexpensive primary health care, including sexual and reproductive health care facilities (for example, informational family planning centers and other agencies), focusing on maternity and urgent obstetric care systems. In line with the coordinated measures designed within the framework of the Program of Action of the International Conference on Population and Development, health care systems in some of the countries have to recognize the problem caused by the negative impact of unsafe induced abortions and to find ways of tackling this problem. This determines the necessity of having a very well organized family planning program.

So, key directions of the Project are aimed at the achievement of best transformations within reproductive health care in Tajikistan.

In order to ensure successful implementation of this Project Dr K.Olimova, Deputy-Minister of Health of the RT, has been appointed **National Project Coordinator**. Besides that A Steering Committee was set up, the Chairman of which is Dr N. Abduzhabbarov, Advisor of the Minister of Health of the RT on issues related to the health system Reform, to technical examination of projects and programs implemented in this sector. To implement project components, four working groups of twenty national experts have been set up.

At the suggestion of L. Ivanov, Head of WHO LO in Tajikistan, **a research group was set up to develop survey methodology for Rapid Assessment of the current RH system, to determine the structure of analyses and survey results evaluation and also to edit the Report under consideration.**

This Group includes:

- Professor Dr L. Ivanov, MD, Head of WHO LO in the Republic of Tajikistan.
- Dr K.Olimova - Deputy-Minister of Health of the Republic of Tajikistan
- Professor Dr Yev. Narzullayeva, Director of Research Institute of Obstetrics, Gynecology and Pediatrics, Ministry of Health of the Republic of Tajikistan
- Professor Dr M.Dodkhoyeva, Chief of the Chair of Obstetrics and Gynecology of Tajik State Medical University
- Dr F. Abdurakhmanov, Chief of the Chair of Obstetrics, and Gynecology of Tajik Medical Institute of Post-graduate training
- Dr Sh. Kurbanov, Chief Specialist of MCH Department of the Ministry of Health of the Republic of Tajikistan
- Dr S.Mukhamadieva, Deputy-Director of the Research Institute of Obstetrics, Gynecology and Pediatrics, Ministry of Health of the Republic of Tajikistan

- Dr U.Uzakova, Senior Lecturer of the Chair of Obstetrics and Gynecology of Tajik State Medical University
- Dr S. Saifuddinov, Director of the Center of Health Statistics and Information, Ministry of Health of the Republic of Tajikistan
- Dr G.Baimuradova, Reproductive Health Program Assistant, WHO LO in the Republic of Tajikistan

In is quite obvious that to achieve the overall goal of the Project and to improve reproductive health informational management system it is necessary, in the first place, to study the country situation in a complex way.

The focus of this analytical survey is to determine the current level of the reproductive health system, including its infrastructure, staff potential, equipment, drug/contraceptives availability, and scope and quality of services. RH Rapid Assessment results will help to develop specific approaches and action plan on the unification of reporting system in terms of it compatibility with the international statistics, the use of modern ways of planning, effective management, ways to improve reproductive health system, health personnel training and population education.

Given the identified goal it is necessary to resolve the following tasks:

1. Description and assessment of the current status, scope and quality of reproductive health
2. Identification of underlying reasons for the poor health of mothers and children linked to reproductive health problems
3. Development of recommendations.

The general design of the Rapid Assessment survey is based on the WHO Guidelines «Safe Motherhood Needs Assessment», WHO/RHT/MSM 96.18).

To carry out a **comprehensive survey** on rapid assessment of the current situation in reproductive health system in all the oblasts, cities and rayons of the Republic, a questionnaire developed by WHO/Euro was used which is based on the “Mother Baby Package” (WHO/FHE/MSM/ 94.11). This questionnaire covers all the service levels in the field of reproductive health, in other words, beginning with the primary health care and up to the level of the National Center of Reproductive Health and Research Institute of Obstetrics, Gynecology and Pediatrics of the Ministry of Health (Health Houses, SVA, SUB, antenatal clinics, RHC, maternity hospitals and gynecological in-patients at rayon, city, oblast and Republican levels).

Prior to beginning this survey, on September 11-12, 2000 there was a special workshop at the premises of the National Reproductive Health Center. Participants of this workshop, who included directors of rayon, city, oblast and the National centers of Reproductive Health, specialists of the Chairs of Obstetric and Gynecology of Tajik State Medical University and of Tajik Medical Institute of Post-graduate training, have been trained in the methodology of a rapid assessment survey.

In the course of this workshop the WHO/Euro questionnaire was adopted to the local conditions. The workshop was conducted with the participation of WHO/Euro expert, Dr S.Nukusheva (School of Public Health, Republic of Kazakhstan), and also with the national experts Dr S.Saifuddinov, Director of Medical Statistics and Information Center, Ministry of Health, Dr Sh.Kurbanov, Chief specialist of

MCH Department, Ministry of Health of the RT, Dr M. Kasymova, Director of the National Reproductive Health Center.

The questionnaire includes the following items:

- Demographic indicators
- The structure of reproductive health system of the Republic of Tajikistan:
- Family planning
- Antenatal obstetric care
- Safe delivery
- Newborn care
- Capacities of emergency obstetric care
- Reproductive health services for adolescents

At the beginning of October 2000 the Questionnaire was published and disseminated among 2471 health facilities of the Republic of Tajikistan. In order to collect data in 22 cities and 58 rayons of the Republic, a Working Group of the national experts was set up:

- Dr Sh. Kurbanov, Chief Specialist of MCH Department, Ministry of Health of the RT (Khudzhant city, Chkalovsk city, Taboshar city, Kairokkum city and Matchinskyi, D.Rasulovskiyi, B.Gafurovskiyi, Kanibadamskiyi, Isfarinskii and Ashtskiyi rayons of Sogda oblast).
- Dr Mkasymova, Director of the National RH Center (Khorog city, Roshtkalinskii, Ishkashimskii, Raushanskii, Murgabskii, Shugnanskii, Darvozskii and Vanchskii rayons of Gornj-Badakhshanskii Autonomous oblast).
- Dr S. Mukhamadiev, Deputy-Director of the Research Institute of Obstetrics, Gynecology and Pediatrics, Ministry of Health of the Republic of Tajikistan (Dzhargitalskii, Garmskii, Tajikabadskii, Tavildarinskii, Darbandskii, Faizabadskii rayons and Rogun city).
- Dr U. Uzakova, Senior Lecturer of the Chair of Obstetrics and Gynecology of Tajik State Medical University (Tusunzadevskii, Shakhrinavskii, Gissarskii, Leninskii, Kafarnikhonskii and Varzobskii rayons).
- Dr S. Shakhobova, Chief Specialist of MCH Department, Ministry of Health of the RT (Gazamaliksii, Khodzhamastonskii, Bokhtarskii, Vakhshskii and Sarbandskii rayons).
- Dr R. Alieva, Chief Specialist of the Khukumat Health Department, Dushanbe city (Kurgan-Tyube city, Kumsarginskii, Pyandzhskii, Kolkhozabadskii rayons of Khatlon oblast).
- Dr S Doliev, Deputy-Chief of the Khukumat Health Department, Khatlon oblast (Beshkentskii, Kabadiyanskii, Shaartuzskii, Dzhilikulskii rayons of Khatlon oblast).
- Dr K. Umarova, Director of the Reproductive Health Center in the city of Kulyab (Kulyab city, Shubardskii, Muminabadskiy, Khovalingskii, Baldzhuvanskii, Kulyabskii rayons of Khatlon oblast).
- Dr M. Radzhabova, Director of Sogdy oblast Reproductive Health Center (Nauskii, Zafarabaskii, Ura-Tyubinskii, Shakhristanskii, Aininskii, Pendzhikentskii and Gorno-Matchinskii rayons).

Deputy-chief doctors and directors of Reproductive Health Centers in the cities and rayons of the Republic of Tajikistan were active in assisting members of the Working Group.

Processing the results of this survey has been done by the Republican Medical Statistics Center under the Ministry of Health of the Republic of Tajikistan (S. Saifuddinov the Head of the Center). The

Center has developed a “Monitoring” software program specifically for this purpose. It is based on the software DELPHI 3.0, which is an object oriented programming technology. Monitoring was done with the use of RAD. This software has been specifically installed with the framework of the Project Taj 02/01/02 “Reinforcement of the Managerial Potential of the Ministry of Health and the National Reproductive Health Center and Development of Reproductive Health Informational System” to do the computer data processing under Rapid Assessment of reproductive health system in the Republic of Tajikistan.

The «Monitoring » program has the following advantages:

- very convenient data entering regime, data saving, editing and deleting modes.
- the ability to enter data from several computers into one. Data processing includes the following methods:
 - summing up in all the six types of questionnaires by facility-rayon-city-oblast-Republic;
 - alternative indicator analyses.

Data analyses results could be on the display or be sent to printer in cartographic form or in the form of histograms of four types, including creation of own indicators (figures, vertical, horizontal and round - pie diagrams).

When entering and processing data there were some difficulties related to the filling in the questionnaires. The specialists eliminated the majority of these difficulties immediately. Due to the lack of communication means Tavildarinskyi rayon was excluded from the survey. Data on Tajikabadskyi, Dzhirgital'skiyi, Dorband'skiyi and Garm'skiyi rayons have been excluded from the survey at the level of health houses, SVA, SUB because it was possible to collect data only at the level of antenatal clinics and maternity houses.

The following **methods** have been used in the course of Rapid Assessment of reproductive health system:

- Demographic analyses
- Comparative analyses
- Alternative analyses
- Interview
- Internal form control and comparison of the data collected with the data of annual reports.

In some parts of the present document the authors also used data of formal statistics and some other sources for the sake of comparative analyses. In such cases the sources are mentioned. In case the sources of information are not indicated they should be accepted as the results received based on Rapid Assessment of the reproductive health system.

3. National Reproductive Health Care System

3.1 Reproductive health care facilities

In Tajikistan a network of facilities dealing with different aspects of reproductive health is represented by 1633 Health Houses (HH)*, 493 rural doctor ambulatories (SVA), 217 Rural Catchment Clinics (SUB), 79 antenatal clinics (AC) under city and central rayon out-patients (CRO), 64 maternities or maternity departments (MD) under urban and central rayon hospitals (CRH), 9 independent maternity hospitals and 68 National, oblast and rayon Centers of Reproductive Health (CRH). Official statistics as to the distribution of the aforementioned facilities by the regions of the Republic is given in Table 2.

Table 2

A network of health facilities by regions of the RT

Regions	Health House	SVA	SUB	Antenatal clinics under CRC	Maternity Departments under CRH, CCH Department under CRH, CCH and CHC	Maternity hospital	RH centers and RH clinics
Dushanbe	-	-	-	13	1	3	2
Khatlon oblast	687	189	81	26	26	2	26
Sogda oblast	343	131	69	19	18	2	18
Rayons of Republican Subordination	452	142	50	13	11	2	13
GBAO	151	31	17	8	8	-	9
Total	1633	493	217	79	64	9	68

Source: Republican Center of Medical Statistics and Information, Ministry of Health of the RT

Rapid Assessment of the reproductive health system in the Republic of Tajikistan has been done in 1518 (93.0%) Health Houses, 710 (100%) rural Doctor ambulatories, rural Catchment hospitals, 74 (93.6%) antenatal clinics, 71 (97.2%) maternity departments under city, central rayon hospitals and maternity hospitals, 65 (95.5%) centers and reproductive health clinics.

Thus, more than 94.3% of the reproductive health facilities in the Republic are covered by monitoring (Table 3).

* With the exception of 14 mobile Health Houses for primary health care in the remote pastures

Table 3

Health facilities network by regions of the Republic of Tajikistan that have been covered by Rapid Assessment

Regions	Health Houses		SVA and SUB		Antenatal clinics under CRO		Maternity Department under CRH, CCH and CHC		Maternity hospital		RH centers	
	Abs. No	%	Abs. No	%	Abs. No	%	Abs. No	%	Abs. No	%	Abs. No	%
Dushanbe	–		–		13	100	1	100	3	100	2	100
Khatlon oblast	647	94.2	270	100	25	96.2	24	92.3	2	100	26	96.1
Sogda oblast	334	97.3	183	91.5	19	100	17	94.4	2	100	18	100
Rayons of Republican subordination	389	86.1	186	96.8	11	84.6	11	100	2	100	13	100
GBAO	148	98.0	47	97.9	7	87.5	8	100	–	-	8	100
Total	1518	92.9	686	95.2	75	94.9	61	95.3	9	100	67	98.5

In the capital City the Reproductive Health Center coordinates the activity of 13 family planning clinics, which are located at the premises of antenatal clinics. Besides this there are 2 independent maternity hospitals, which are supervised by the chairs of obstetrics and gynecology of TSMU, and a maternity department at the premises of city Health Center.

In Khatlon oblast there are oblast and city maternity hospitals in the town of Kulyab, a maternity Department in the premises of oblast hospital №1 and city hospital in the town of Kurgan-Tyube. Besides that there are also 26 functioning maternity departments in Central rayon hospitals and 26 antenatal clinics in the premises of Central rayon polyclinics. To ensure primary health care there are 687 functioning Health, 189 rural doctor ambulatories and 81 rural catchment clinics. The oblast reproductive Health Center in Kurgan-Tyube and the regional center in the town of Kulyab coordinate the activity of 24 centers.

In Sogda oblast, specifically in the city of Khudzhand there is 1 oblast and 1 city functioning maternity hospitals. The oblast reproductive health center in Khudzhand coordinates the activity of 18 reproductive health centers. Besides that there are also 17 maternity departments in the Central rayon hospitals, 19 antenatal clinics functioning at the premises of central rayon outpatients, 69 rural catchment hospitals, 131 rural doctor ambulatories and 343 health houses.

In Gorno-Badakhshan Autonomous oblast reproductive health care is represented by the maternity department in the oblast hospital, oblast and city Reproductive Health Centers in the town of Khorog and 7 maternity departments in central rayon hospitals, 9 antenatal clinics at the premises of Central rayon polyclinics and 8 rayon centers and clinics of reproductive health, 31 rural doctor ambulatories, 17 rural catchment hospitals and 151 health houses.

In 13 rayons of Republican Subordination there are 2 functioning maternity hospitals (Tursunzadevskiy and Kofarnikhonskiy), 11 maternity departments at the premises of Central rayon and city

hospitals, 13 antenatal clinics and Reproductive Health Centers at the premises of Central rayon polyclinics, 142 rural doctor ambulatories, 50 rural catchment hospitals and 452 Health Houses.

Reproductive health care in Tajikistan is provided by means of a four-level system. Health House (HH), SVA, SUB constitute the first level of health care system, which is characteristic specifically for the rural area. Health House is a new type of health facility within the structure of the entire health care of the country. They have come into being as a result of transformation of feldsher-midwife units. The peculiarity of these facilities is that the availability of a midwife within the staff is a must. Based on the current regulation specialists in the field of nursing care (feldsher, midwife, catchment nurse and nurse responsible for social patronage and communication) working in the HH provide:

- Adequate antenatal care for pregnant women,
- Obstetric care if necessary in at home delivery or postpartum care
- Counseling on issues of reproductive health and family planning.
- Contraceptive services (by certified midwives).

SVA co-ordinates the activity of health houses subordinated to it. Depending upon the number of catchment population, rural doctor ambulatories are supposed to have a physician, a pediatrician, an obstetrician-gynecologist, a surgeon, a dentist and also specialists in the field of nursing care (feldsher, midwife, catchment nurse and a nurse on social patronage and communication).

Rural doctor ambulatory provides:

- Qualified medical ambulatory help
- Services in the ambulatory and at home for the catchment population
- Antenatal and postpartum health care
- Management of uncomplicated deliveries
- Counseling on reproductive health and family planning issues,
- Contraception services.

In maternity departments (obstetric beds) in the rural catchment hospitals (SUB) people can get in-patient care in case of urgent deliveries, counseling on reproductive health care and family planning, contraception services, postpartum contraception and counseling including.

Rayon and city Reproductive health centers and antenatal clinics, Central rayon hospitals, city hospitals (maternity hospitals) are the second level care.

At city and rayon Reproductive health centers, antenatal clinics, maternity department of city and Central rayon hospitals (CRH) and maternity hospitals people can get qualified obstetric-gynecological care, including:

- Antenatal and postpartum care
- Counseling on family planning issues
- Contraception services
- Mini-abortion management and post-abortion care
- STI prevention and management
- Examination and treatment of gynecological cases
- Reproductive function rehabilitation
- Complicated pregnancy management

Third level reproductive health facilities are oblast (regional) CRH, hospitals and maternity hospitals (departments), which co-ordinate the activity of city and rayon health facilities in the oblast. One of the main functional responsibilities of the aforementioned facilities is counseling.

The National Reproductive Health Center co-ordinates the activity of reproductive health centers, ensures staff potential, training, contraceptive resource management, analyses of the activity of reproductive health centers, routine (planned) and other type (in case of necessity) of supervision.

Reproductive health services are available in the catchment health facilities but in case of necessity in any other health facility. According to the rules currently in force, pregnant women are to be registered and managed by the primary health facilities (Health House, rural doctor ambulatory or an antenatal clinic). They are either referred to the health facility or they come themselves with their history cards, in which their health status, pregnancy progress and care given are reflected.

The Research Institute of Obstetrics, Gynecology and Pediatrics provides specialized help. It is a leading institution in the field of reproductive health care in the Republic. It is also the base where medical students have their clinical practice. The Institute also carries out research of urgent issues in the field of reproductive health. There is also a Medical–Genetic Center, which provides counseling, carries out studies of medical– genetic situation in the Republic and screening methods to prevent congenital and hereditary diseases.

The Republican Center on Breastfeeding Support and Promotion is in the premises of this OGP Institute, which works in co-ordination with the Rooming-in Department and renders organizational and methodological support to different health agencies and health facilities in terms of the BF Program implementation aimed at bringing down morbidity and mortality among children under 5.

Services rendered by the primary health care facilities include: antenatal and postpartum care, prevention of complications in pregnancy and delivery, family planning, STI prevention and management, management of gynecological diseases, provision of mini-abortions and post-abortion care, reproductive health care of adolescents.

Based on the assessment findings it may be said that all the primary reproductive health care facilities have the capacity to do counseling and examination, while observing privacy interests of their clients.

The population number on the health house catchment area is from 300 to 2800 people, on the area of rural doctor ambulatory it is from 5000 to 8000, on that of rural catchment hospitals - 15000-20000.

Survey outcomes showed that in mountainous areas health houses have been set up mainly in the settlements with the number of population up to 300 people, which is in line with the regulatory documents of the Ministry of Health. It has also been revealed as a result of the survey that in the majority of primary reproductive health facilities health specialists were not to be found after 14-15 o'clock, which could be attributed to the lack of subjective motivation on the part of the personnel and to the irregular power supply.

Referral level, specifically hospitals, provide round-the-clock help to the population, mainly by obstetrician-gynecologists and midwives. However, due to the shortage of obstetrician-gynecologists in some of the cities and rayons, this kind of help is provided only by midwives (Khovalingskyi, Shurabadskyi, Beshkentskyi, Baldzhuanskyi, Varzobskyi, Tavildarinskyi, Tajibadskyi, Gorno-

Matchinskyi, Vanchskyi, Darvazskyi, Roshtkalinskyi, Murgabskyi and Shugnanskyi, as well as in the towns of Rogun and Taboshar).

Obstetric-gynecological beds in the Republic are distributed in the following way: obstetric beds 3960, pathologic pregnancy 991, gynecology 1391, abortion 59. It should be mentioned that day in-patient facilities have 40 beds (Table 4).

Table 4

Bed capacity of reproductive health care facilities in the Republic of Tajikistan

Regions	Number of beds by care type			
	Pregnant and women in childbirth	Pathologic pregnancy	Gynecology	Abortion services provision
Dushanbe	285	210	205	10
Khatlon oblast	1400	239	379	10
Sogda oblast	1387	447	590	34
GBAO	130	20	30	5
RRS	755	75	187	–
REPUBLIC	3960	991	1391	59

Source: Republican Center of Medical Statistics and Information, Ministry of Health of the RT

Obstetric-gynecological bed capacity is 10.5 per 10000 of the population: out of them obstetric 6.6, pathologic pregnancy 1.6, gynecologic 2.3, abortion 0.1 and day care hospitals 0.08.

Rapid Assessment showed that in the majority of health facilities bed capacity is used by 50-70%, and in some of the rayon maternity departments (Faizabadskyi, Darbandskyi, Tavildarinskyi, Tajikabadskyi, Dzhirgatal'skiy, Khovalinskyi, Shurabadskyi, Muminabadskyi, Sovetskiy, Beshkentskiy, Dzhalikul'skiy, Gozimalik'skiy, Aininskyi and Shakhristinskyi rayons) bed-days make up only from 30% to 60% of capacity.

It has been found that one of the reasons for poor bed capacity use is the lack of equipment and supplies, which is due to meager budget resources allocated for the hospitals. Another important reason is poor transportation, including sanitary transport, communication means and etc. All these issues are described in detail in Section 3.2.

The physical condition of the aforementioned facilities plays an important role in provision of effective facility functioning. Thus, out of 428 buildings used by the hospitals 279 (65%) have been built in the period from 1938 to 1980, and only few of them are of standard design. In the last 10 years construction of new facilities is going very slowly. The majority of these facilities (87%) are badly in need of repair or reconstruction. 55% of the primary health care facilities are located in the buildings that do not meet any sanitary norms and rules, while the condition of those that used to be adequate is going worse, since no capital repair has ever been done from the time they have been put into operation. Out of 1647 Health Houses 739 (44.8%) do not have their own facilities and are located in the premises of other sectors or in private houses, 316 (19.3%) –in trailer-like houses, consisting of one or two rooms. Many of the health facilities - 1371 (84.2%) - have no water supply or sanitation system.

Social and economic situation in the country limits the capacity of renovation, capital repair, construction and putting into operation of new hospitals.

3.2 Communication services

At present the majority of the reproductive health facilities are characterized by a very low level of utilities supply (Table 5, Figure 3).

The communication system in many of the health facilities is in a very poor condition; there is neither internal nor external communication, for example with emergency care system or with other hospitals.

The telephone system is functioning only in the capital, oblast centers, large cities and rayons. Practically speaking there is no telephone connection in the primary health care facilities or it is not functioning. This is the case with the majority of health houses, rural doctor ambulatories and rural catchment hospitals.

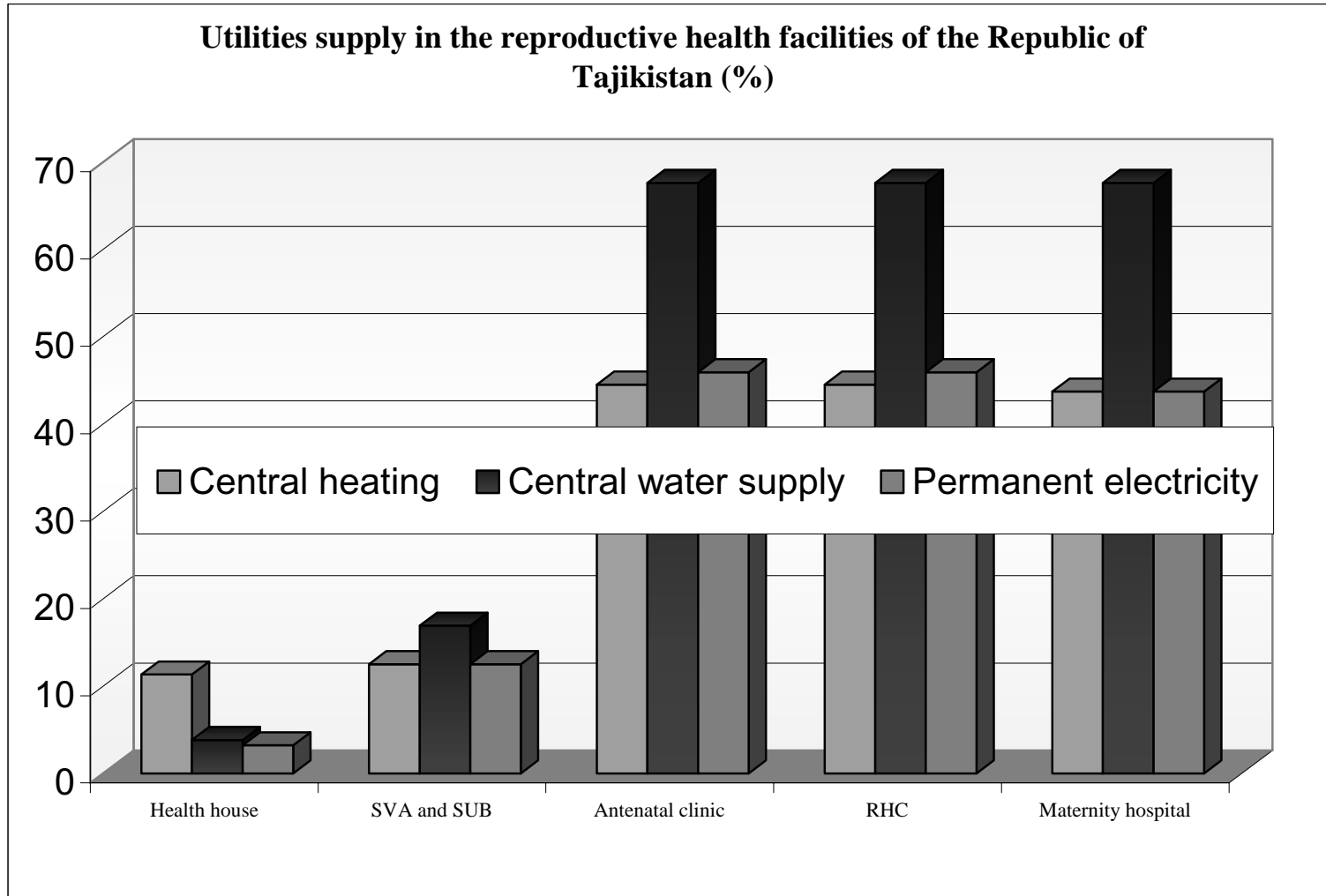
Hospital communication system in the field of reproductive health is also unsatisfactory. Thus, in only 67.6 % of maternity departments of the Republic there is water supply system; they use wood and coal stoves for heating and only in 43.7% of the facilities access to central heating system is available. Permanent electricity supply is available only in 43.7% of maternity departments.

Table 5

Availability of Utilities in reproductive health facilities of the Republic of Tajikistan (%).

	Health House			Antenatal clinic			SVA and SUB			Maternity hospital			RHC		
	Central heating system	Central water supply system	Permanent supply of electricity	Central heating system	Central water supply system	Permanent supply of electricity	Central heating system	Central water supply system	Permanent supply of electricity	Central heating system	Central water supply system	Permanent supply of electricity	Central heating system	Central water supply system	Permanent supply of electricity
Dushanbe	–	–	–	76.9	100	76,9	–	–	–	75	100	76.9	100	100	100
RRS	4.1	4.1	4.1	36.3	63.6	36.3	10.2	31.0	10.2	35.7	85.7	35.7	36.3	63.6	36.3
Sogd	34.1	8.7	6.0	42.1	84.2	63.2	29.3	30.2	29.3	57.9	84.2	52.6	50.0	61.1	50.0
Khatlon	3.7	1.5	1.2	36.4	44.0	36.4	13.4	14.8	13.4	34.6	46.2	34.6	36.4	44.0	36.4
GBAO	4,7	1.2	2.7	28.6	57.1	28.6	12.8	4.3	12.8	37.5	50.0	37.5	100	100	100
Republic	11.3	3.8	3.2	44.5	67.6	45.9	12.5	16.9	12.5	43.7	67.6	43.7	44.5	67.6	45.9

Figure 3



Rapid Assessment demonstrated the fact that Dushanbe is supplied by 100% with central heating but in 23.1% of antenatal and reproductive health clinics heating is not available. Out of the 4 maternity hospitals heating is to be found only in one of them due to the damage of one section of the city central heating system and debts of the health facilities before heat supplier – the Thermal Power Station of Dushanbe city. That is why all of the aforementioned health facilities use electric heaters. Permanent electricity supply of health facilities is up to 76.9%, which is relatively good in comparison with other regions of the Republic. Permanent water supply in the capital is 100%.

The most drastic situation with heating in the primary health care facilities (health houses, rural doctor ambulatories, reproductive health centers) is in the rayons of Republican subordination, Khatlon and Gorno-Badakhshan oblasts, in which heating supply is 3.7 to 36.4% (Table 5). The reason of low supply of the aforementioned reproductive health facilities is electricity cut off in daytime. Low level of electricity supply of primary health care facilities (health houses, rural doctor ambulatories, antenatal clinics, reproductive health centers) is characteristic for Khatlon and Gorno-Badakhshan oblasts (from 1.2% to 36.4% and from 2.7% to 28.6% accordingly, Table 5), which is determined by the limited supply of electricity.

On the whole, permanent water supply in the country is poor: in the health houses it makes up 3.8%, rural doctor ambulatories and rural catchment hospital 16.9%. The situation is somewhat better in antenatal clinics, reproductive health centers, maternity hospitals and departments, where it is 67.6% (Table 5). It has been found that permanent central heating is available only in 27.3% of maternity hospitals and departments, primary health care facilities (health houses, rural doctor ambulatories, antenatal clinics, reproductive health centers). In the rest of the reproductive health facilities they use electric heaters and in many cases these are self-made heaters; some of them use stoves. In many cases when coal is not available they use wood for the stoves. Because of the shortage of electric power, a limited (on schedule) electricity supply scheme was introduced in the country. Now it is available in the morning from 6 to 9 a.m. and in the afternoon from 18 to 21 p.m. in many regions. This is the time when many primary care health facilities are closed. Thus, it can be stated that though 100% of the health facilities do have power transmission lines they are not supplied with electricity on a permanent basis.

Dramatic shortage of transportation means is another big problem, which has an extremely negative impact upon effective functioning of reproductive health system. Transportation capacity of primary health care facilities is 23.5%, out of them 78.2% are not functioning.

3.3 Staff Resources of the Reproductive Health System

According to the formal statistics the number of obstetrician-gynecologists engaged in the reproductive health system as of January 1, 2001 was 1222, including: Dushanbe 402, Khatlon oblast 193, Sogda oblast 433, Gorno-Badakhshan Autonomous oblast 31, and in the Rayons of Republican Subordination 163. It should also be mentioned that in 1995, in comparison with 1999, there was an outflow of specialists due to their joining business or other activity spheres and made up 12%, including: Dushanbe 5%, Khatlon 11%, Gorno-Badakhshan Autonomous oblasts 66.7% and Rayons of Republican Subordination 35.4%.

Given this, the Ministry of Health of the Republic has undertaken additional measures to train this type of specialists and to fill the gap (enrollment of students from those rayons where there is a shortage of such specialists into the TSMU and into medical colleges). As a result of these measures the number of such specialists in the country in 2000 increased by 21.7% in comparison with 1995 and by 12.4% - since 1990. In Dushanbe the number of this category of specialists has gone up in comparison with 1990 by 22.4%, in Sogda oblast by 41%. In Khatlon oblast and Rayons of Republican Subordination their number decreased by 15.8% and 16.5% accordingly, while in Gorno-Badakhshan Autonomous oblast their number has almost reached the 1990 level. Only in Sogda oblast there has been reported consistent increase of the number of obstetrician-gynecologists in the space of the last 10 years at the expense of their outflow from other regions of the country and due to training new specialists.

The outflow of midwives during 1990-2000 is still more obvious. Their number in the country on the whole has gone down by 23.3%: in Dushanbe by 51.3%, in Khatlon oblast by 32.7%, in Sogda by 23.7%, and in the Rayons of Republican subordination by 51.3%. Gorno-Badakhshan Autonomous oblast is an exception, where in the last ten years the number of midwives increased due to internal migration. According to official data the number of midwives as of 01.01.2001 in reproductive health facilities of all the levels is 4203, including Dushanbe 285, Khatlon oblast 1337, Sogda oblast 1742, Gorno-Badakhshan Autonomous oblast 336, and in the Rayons of Republican subordination 533.

Data as to the number of obstetrician-gynecologists and midwives is given in Table 6 and Figure 4.

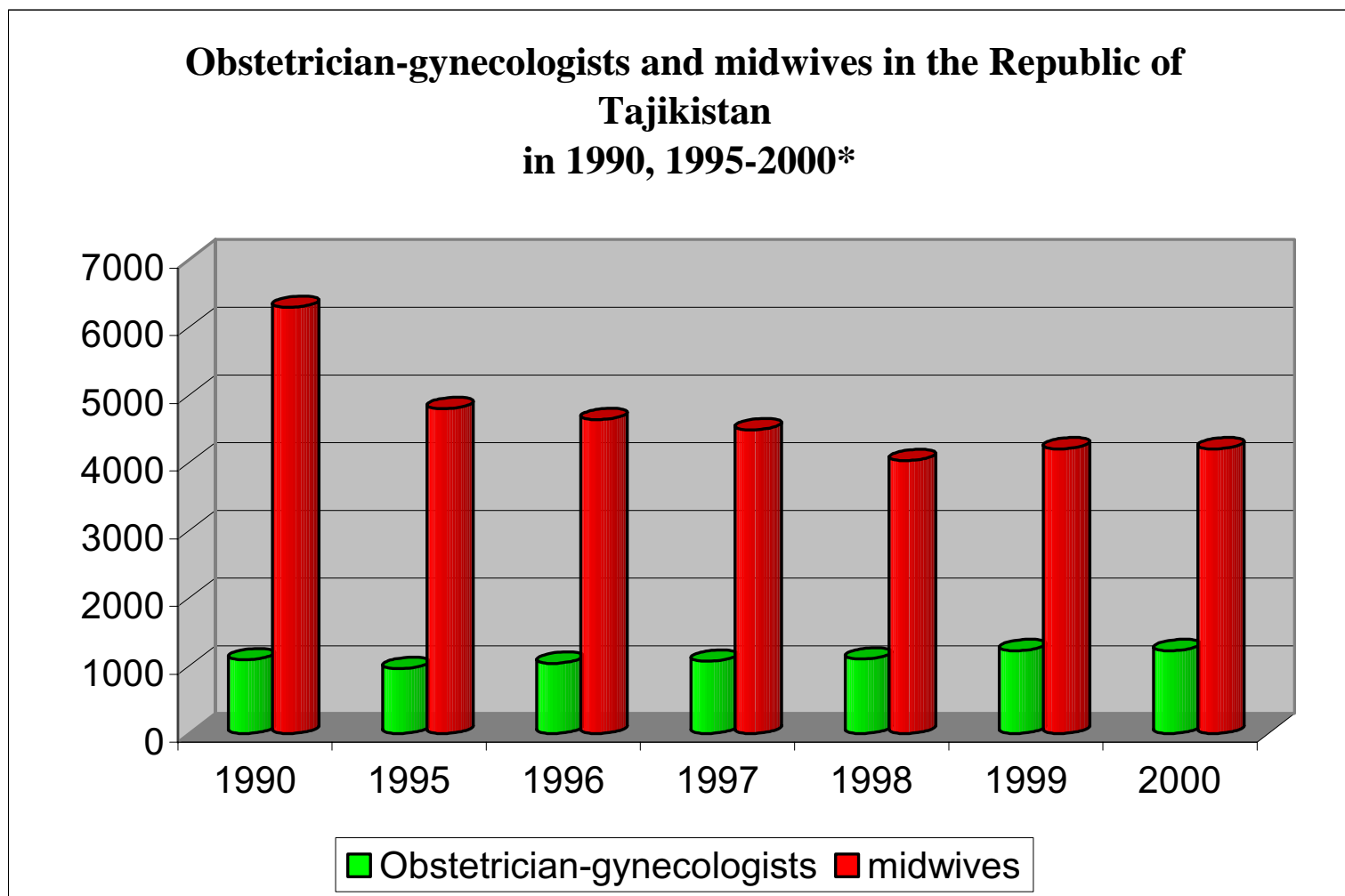
Table 6

**Dynamics of the number of obstetrician-gynecologists and midwives by regions
Of the Republic of Tajikistan for 1990, 1995-2000.**

Regions	1990		1995		1996		1997		1998		1999		2000	
	Doctors	Midwives	Doctors	Midwives	Doctors	Midwives	Doctors	Midwives	Doctors	Midwives	Doctors	Midwives	Doctors	Midwives
Dushanbe	323	710	307	327	330	365	351	292	354	211	402	285	402	285
Khatlon oblast	229	1986	204	1474	170	1331	171	1260	185	1231	193	1337	193	1337
Sogda oblast	307	2286	352	2080	364	1946	362	1893	379	1756	433	1742	433	1742
GBAO	33	282	11	287	37	394	31	379	29	310	31	306	31	306
RRS	195	1038	126	629	134	599	149	660	152	520	163	533	163	533
Republic	1087	6292	957	4797	1035	4635	1064	4484	1099	4028	1222	4203	1222	4203

Source: Republican Center of Medical Statistics and Information, Ministry of Health of RT

Figure 4



Source: Republican Center of Medical Statistics and Information, Ministry of Health of RT

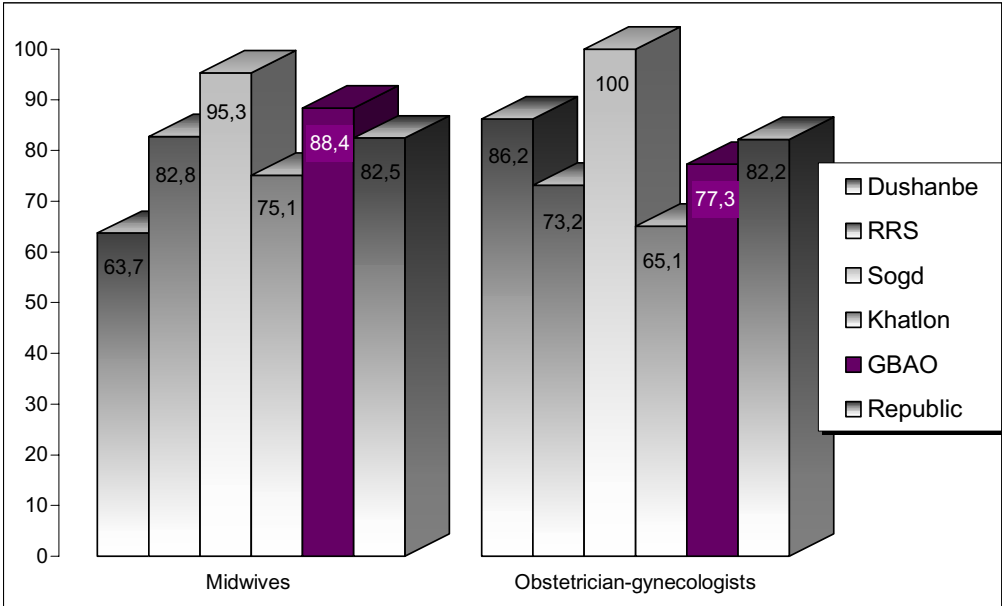
Still, the proportion of obstetrician-gynecologists is rather low for the population and is 1.3 per 10000 of the population: in Sogda oblast 2.0, Gorno-Badakhshan Autonomous oblast 1.4, in Khatlon oblast 0.8 and in the Rayons of Republican Subordination 1.1. At the same time the largest number of this types of specialists is reported to be in Dushanbe (the proportion is 6.9 per 10000 of the population).

Low is the ratio of midwives per population; in the country on the whole it is 6.6:10,000 in Khatlon oblast 5.7, and in the Rayons of Republican Subordination 3.8, in Dushanbe 4.1, while in Gorno-Badakhshan and in Sogda oblasts it is 15.6 and 9.5 accordingly.

The requirements of reproductive health facilities in obstetrician-gynecologists and in midwives are not met adequately. They make up 82.2% and 82.5% in the country on the whole. In Khatlon oblast it is 65.1% and 75.1%; in the Rayons of Republican Subordination 73.2% and 82.8%; in Gorno-Badakhshan Autonomous oblast 77.3% and 88.4%; in Dushanbe 98.2% and 63.7%, while in Sogda oblast it is 100% and 95.3%.

Information about reproductive health facilities staffing in terms of the number of obstetrician-gynecologists and midwives is given in Figure5.

Figure 5
Staffing requirements in obstetrician-gynecologists and midwives
by regions of the Republic of Tajikistan (in % to the required number)



Source: Center of Medical Statistics and Information, Ministry of Health of the RT

As the results of Rapid Assessment show, there are 1092 obstetrician-gynecologists in the reproductive health facilities covered by the survey. Since personnel of medical schools, both full staff and part-time employees, have not been included into the survey, the number of specialists was 130 people less than in the formal statistics.

Thus, Rapid Assessment results and the current formal statistics clearly revealed geographic disproportion between the staff of reproductive health facilities. This type of disproportion is especially obvious in the Rayons of Republican Subordination and in Khatlon oblast. Geographic disproportion is also obvious inside the regions (redundancy in some and shortage in other cities and rayons).

It should be mentioned that for Dushanbe redundancy in obstetrician-gynecologists is characteristic. There is an obvious trend of unemployment growing among them. Such a situation is linked with inadequate training and distribution of such specialists practiced by the Tajik State Medical University, though there is no need for them in the reproductive health facilities of Dushanbe. At the same time considerable disproportion could be clearly demonstrated by the example of the city maternity hospital in Khudzhand, Sogda oblast, where 24 obstetrician-gynecologists work instead of the required 12, while in Ura-Tyubinsk maternity hospitals there are 12 vacancies. There is a need for midwives, especially in the health houses, rural ambulatory hospitals and antenatal clinics. Thus, staff needs of antenatal clinics in Dushanbe are met only by 51.2%, in Khatlon oblast by 67.3%, in Sogda oblast by 79.5%, Rayons of Republican Subordination by 72.5%, while in Gorno-Badakhshan Autonomous oblast by 94.5%.

It has also been found out that there is shortage of midwives in reproductive health centers: in Dushanbe these needs are met only by 50.0%, in Khatlon by 70.5%, in Sogda by 60.0%, in Rayons of Republican Subordination by 84.5% and in Gorno-Badakhshan Autonomous oblast by 50.0%.

Similar situation seems to be in the in-patient reproductive health facilities of the country. The requirements of maternity hospitals in Khatlon oblast are met by 67.5%, in Dushanbe by 85.5%, while in Rayons of Republican Subordination by 93.5%, in Sogda oblast and Gorno-Badakhshan Autonomous oblast by 98.5% and 98.0% accordingly.

It means that there is a necessity to introduce amendments and additions into the plan of midwife training.

In the transition period, emerging social and economic problems seem to be the key obstacle on the way of regular post-graduate training for the personnel of reproductive health care. This training is very important in terms of upgrading professional skills in the sphere of reproductive health. This means there is a necessity to restore the system of regular post-graduate training, to develop flexible ways of post-graduate education for such type of specialists including development and introduction of module courses.

Rapid Assessment revealed that more than 86% of obstetrician-gynecologists do not fulfill the requirements of the qualification category; 55% of obstetrician-gynecologists and 92.7% of midwives have not taken part in qualification upgrading courses in the space of the last 5 years (Table 7).

Table 7

Number of obstetrician-gynecologists that have taken part in qualification upgrading courses in the last 5 years, by reproductive health facilities.

Regions	Total # of specialists		Those that have upgraded qualification			
	Obstetrician-gynecologists	Midwives	Obstetrician-gynecologists		Midwives	
			Abs.#	%	Abs.#	%
Dushanbe	354	211	82	23.2	33	15.6
Khatlon oblast	185	1231	80	43.2	78	6.3
Sogda oblast	372	1756	92	24.7	136	7.7
RRS	152	520	37	24.3	36	6.9
GBAO	29	310	19	65.5	12	3.9
Republic	1092	4028	310	28.3	295	7.3

Source: Results of Rapid Assessment of the current reproductive health system

Data in the Table above show low level of qualification upgrading of obstetrician-gynecologists and midwives in the Republic on the whole.

The Tajik Institute of post-graduate training provides training for both doctors and mid-level health workers. It has the capacity to conduct special training cycles and upgrade qualification of not more than 100 specialists a year. It means that it will take 10 years in order to cover all the obstetrician-gynecologists with such type of training. Naturally, during this period the number of doctors that need qualification upgrading, which they have to go through every 5 years, will grow multifold. When considering factors influencing the process of obstetrician-gynecologist post-graduate training it is necessary to point out that currently considerable resources of TIQUHP are targeted at primary post-graduate training of health personnel (internship doctors, primary specialization). Another factors – difficulties with delegating personnel members for knowledge refreshment courses, linked with economic constraints.

According to data collected, more than half of the obstetrician-gynecologists (63.5%) have been trained in different aspects of reproductive health, specifically each third in counseling principles, contraceptive technology and infection prevention (37.8%), each fifth in STI prevention (24.3%), each tenth in organization and resource management as well as breastfeeding issues (10.8%).

However less than half of the mid-level health workers have been trained in reproductive health and family planning issues (47.9%), including 10 people in Dushanbe (4.7%), 116 in Sogda oblast (6.6 %), 122 in GBAO (39.3%), 128 in Rayons of Republican Subordination (24.2%). In Khatlon oblast such type of training coverage was higher (1164 people, which makes up 94.5%). This could be explained by the fact that the first project “Reproductive Health Improvement and Expanding Family Planning Services” was focused on this oblast and was not a country project.

At the same time specialists in their recommendations pointed out the necessity to continue conducting the aforementioned courses and to organize workshops on urgent obstetric care,

covering such topics as obstetric hemorrhage, eclampsia and septicemia. Information collected is an indirect proof that obstetrician-gynecologists have little idea as to the most important issues of reproductive health care.

Given that more than 70% of the population live in the rural area, training of rural midwives was initiated beginning with 1997, covering such issues as contraceptive technology. Midwives who receive such training are licensed to insert and withdraw IUDs. By now such midwives are available in 88 health houses, 8 rural catchment hospitals and 4 rural doctor out-patient clinics.

Thus, education planning and distribution of specialists in the sphere of reproductive health need considerable correction with due account to current disproportion, both of geographic and organizational nature, and also to disproportion in the field of employment. This is why it is necessary to support return to a regular post-graduate education of this type of specialists and to develop flexible ways of post-graduate training, including the development and implementation of module courses.

3.4 Equipment and drug supply

It is widely recognized that medical equipment and drug supply determine timeliness and quality of health services.

During the last ten years the majority of reproductive health facilities in the country have not had any re-equipment due to poor budget financing.

At present the supply of medical equipment is done mainly by international humanitarian organizations (UNFPA, UNICEF and others). In 1995- 1999 it became possible to procure some technical equipment (video set, computer, printer, overhead projector, slide projector with a set of slides on family planning, photocopying machines, screens and white-boards and etc.) under the joint project of UNFPA and the Government of the Republic of Tajikistan “Reproductive Health Improvement and Expanding Access to Family Planning Services”. This equipment is necessary for reproductive health personnel training and population education as well as for training managerial staff of this sector. Besides that, cars have been provided for the National, oblast (3 - Khatlon, Sogda and GBAO) and the Regional (the town of Kulyub in Khatlon oblast) reproductive health centers and a portable video camera «Panasonic» for the National Reproductive Health Center.

Within the framework of this project 25 reproductive health centers in the cities and rayons of Khatlon oblast in addition to all the oblast centers and the National Reproductive Health Center have got medical equipment and devises (kits for obstetrician-gynecologists and midwives for IUD insertion and withdrawal, for mini-abortion and mini-celiotomy).

Capital repair of the National Reproductive Health Center and the Chair of Obstetrics and Gynecology №1 of Tajik Medical University has been done with the financial support of UNFPA. The Chair of Obstetrics and Gynecology №1 of Tajik Medical University has been equipped with training and medical appliances, computers, Xeroxes, device for ultrasound examination and office furniture. Office furniture has also been provided for the National, all oblast and the regional reproductive health centers.

One of the survey directions was to study the equipment capacity of health facilities and its quality at different levels.

As a result of the Rapid Assessment it was revealed that primary level reproductive health facilities are poorly provided with medical equipment. For example, essential supplies in the health houses of the Republic (scales, pelvimeter, thermometer, stethoscope, speculum, measuring tape, tonometer, stethoscope, gynecologic chair, sterilizers, sterile boxes and hemometers) make up from 12.6% to 67.1% of what is actually needed (Appendix №1). Similar situation is in the rural doctor ambulatories and rural catchment hospitals (Appendix №2). It should be mentioned that situation in antenatal clinics is relatively good in this respect, because they are equipped by 78.4% to 100.0% in terms of the aforementioned devices and appliances (Appendix №3).

Very poor supply of rubber gloves and disposable syringes is of serious concern, because their availability matters much for infection prevention; health houses are equipped with these supplies by 16.3% and 19.0% accordingly, rural doctor ambulatories and rural catchment hospitals by 17.6% and 18.2%, antenatal clinics by 39.2% and 56.7%.

Health facilities have difficulties in STI identification due to the shortage of Folkman devices for vaginal smear collection and glass slides: in health houses they make up, accordingly, 25.4% and 36.6% of what is actually needed; in rural doctor ambulatories and catchment hospitals 26.6% and 32.1%; in antenatal clinics 78.4% and 89.2%.

Despite a rather high proportion of home deliveries in the country, only 25.4% of health houses are equipped with the delivery kits, this is why health workers are in no position to render a more qualified assistance in such conditions. Only 30.6% of rural doctor ambulatories and catchment hospitals have them, while antenatal clinics proved to be equipped with them by 62.2%.

Analyses of the equipment capacity in reproductive health centers showed that though instruments for IUD insertion and withdrawal are available in all these health facilities their number is not sufficient to be able to provide services (Appendix №4).

Only half of all the reproductive health centers in Sogda oblast (50%) and in the RRS (53.0%) have kits for mini-abortion.

Not all the reproductive health centers are equipped with scales, pelvimeters, stethoscopes, tonometers and phonendoscopes in a similar way (equipment capacity ranges from 13.8% to 89.7%), with rubber gloves and disposable syringes – (39.2-56.7%).

Rapid Assessment also revealed differences in the equipment level of reproductive health hospitals, which ranges from 9.8% to 100.0% (Appendix №5).

Despite the fact that in some cases health facilities are equipped by 80% to 100% (stethoscopes to determine fetal heart rate, sterilizers for instruments, thermometers, speculums, catheters, sets for delivery assistance, functional beds, gynecologic chairs, resuscitation tables and scales for weighing the newborns) this equipment is worn out and subject to replacement (Appendix 6-11).

Given high proportion of high risk women with different complications related to pregnancy, delivery and postpartum period in the hospitals these facilities need to be properly equipped in order to provide urgent intensive therapy. In reality this type of equipment (pulmonary ventilation device, pediatric oxygenator, resuscitation beds, transfusion systems, electric

suction devices, sets for cesarean section and fetus destruction operations) makes up from 9.8% to 70.4% of the needed (Appendix №5).

Thus, the results of the survey made it possible to assess the real situation with the equipment supply and its quality, on the basis of which it will be possible to do needs assessment of health facilities at different levels.

Rapid Assessment also helped to analyze drug supply situation at different reproductive health facilities, which turned out to be very limited at all the levels (Appendixes 6-11).

Mention should be made that drugs supplied for urgent care by a number of international agencies is not enough to be able to ensure adequate treatment.

The critical situation with drug supply of maternity hospitals and departments at all the levels in the Republic results in the delay of urgent help provision, which in its turn comes to be a cause of high maternal and perinatal mortality incidence.

Regardless of the fact that obstetric hemorrhage is the major factor in cases of maternal death, only 12.5% of health houses and 5.4% of antenatal clinics in the country have their own uterotonic drugs. In Khatlon oblast and in RRS the level of such drug supply is not more than 3 – 8%. The situation is somewhat better in the health houses of Sogda oblast and GBAO (34.1% and 35.1% accordingly). In the primary level health facilities the level of hypotensive drugs supply is not more than 7.4-31.6% (in the Republic 7.8-16.2%), which naturally makes urgent care in cases of pre-eclampsia very much problematic.

Drug supply in the maternity hospitals also leaves much to be desired.

It has been identified that essential drugs for urgent care, including infusion means are available only in half of the maternity hospitals and departments of central rayon hospitals. From this standpoint the situation is the most critical in the hospitals of Khatlon oblast. Infusion type medications, mainly physiological solution or glucose is available only in 1% of rural catchment hospitals and in 32.4% of maternity hospitals of the Republic.

While doing the survey it was revealed that all the health houses, SVA and SUB do not have kits to determine the blood group. Only 1.4% of antenatal clinics and each third of the maternity hospitals have such kits, except Khatlon oblast where these kits are available in 4.0% and 15.4% of the health facilities accordingly.

Some stock of blood and its components was identified only in 7 maternity hospitals of the Republic (9,9%), mainly in Dushanbe, Sogda oblast and in the maternity department of GBAO oblast hospital. 35.5% of SVA and SUB and 38% of maternity hospitals in the country are equipped with the drugs necessary to prevent and treat septic infections. A similar situation could be observed in all the oblasts and Rayons of Republican Subordination.

Sedative and antihistaminic drugs for anaphylactic shock control are available only in each third or fourth hospital of the Republic, except Khatlon oblast, where the supply level of these medications is still lower and makes up only 10.7-14.3%.

Thus, one of the basic underlying factors of poor quality of health care is considerable shortage of drug supply.

Rapid Assessment provided for the study of contraceptive stock in the Republic. It has been found that in the reproductive health facilities there are: injectable contraceptives (Depo-Provera -9111 vials) IUD 7494 pieces, oral contraceptives 7109 convolutes, condoms 87641 pieces, female condoms 2032 pieces, and spermicide tablets 2373 tubes. Resources available will help to cover 0.7% of reproductive age women with contraception, which is quite insufficient because it meets less than 15% of the annual need of the country (about 10000 couples). In all the reproductive health centers, antenatal clinics and maternity hospitals the stock of contraceptives is about to be finished. This fact endangers the implementation of the national Program “Reproductive Health and Reproductive Rights” and one of the sub-programs of the country program “Reproductive Health” implemented together by the Government of the Republic of Tajikistan and UNFPA.

4. Mother and Child Health

4.1 Maternal morbidity and mortality

In Tajikistan reproductive health of female population causes serious concern because of high maternal morbidity and mortality.

60.4% of pregnant women in the Republic of Tajikistan suffer from some extra-genital diseases (EGD). In the region the highest EGD incidence was reported to be in Dushanbe (78.9%) and in GBAO (62.4%), as for other oblasts the prevalence rate varies from 54.2 to 59.7%. Among them anemia accounts for 85.3% of cases of EGD.

As to anemia in pregnant women iron deficiency is the most prevailing cause, which in some regions is up to 96%. * Malnutrition, low level of iron consumption, poor iron absorption, peculiarities of nutrition pattern and traditions are the major causes of anemia.

Rapid Assessment helped to determine that there were 62680 deliveries during 6 months of the year 2000. Out of them 1524 were premature ones, which makes up 2.4%. It has been found that complicated delivery incidence in the Republic makes up 16.5%, in Dushanbe 32.3%, GBAO 12.9%, Sogda oblast, RRS and Khatlon oblast it is 14.1%, 14.4%, 16.1% accordingly.

Maternal mortality is one of the key health care indicators.

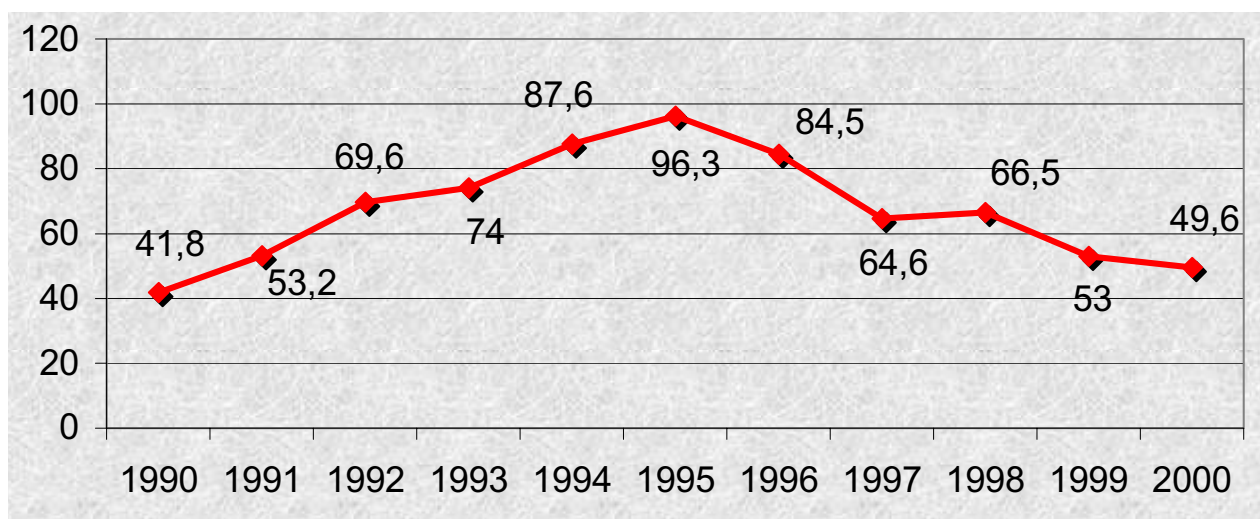
The research done in the field of maternal mortality in the Republic of Tajikistan (annual reports of Research Institute of Obstetrics, Gynecology and Pediatrics) show that key factors of maternal mortality are:

- social: poor social and life conditions, poor sanitary culture of women, labor conditions and health care problems.
- medical and biological: frequent and multiple deliveries, low health index of women, high incidence of extra-genital diseases.

According to official statistics considerable increase of maternal mortality rate was reported in the transition period in the Republic of Tajikistan, actually it has gone up by 2.4 times in the course of 1990 - 1995 (Figure 6).

* National Program on Anemia Control

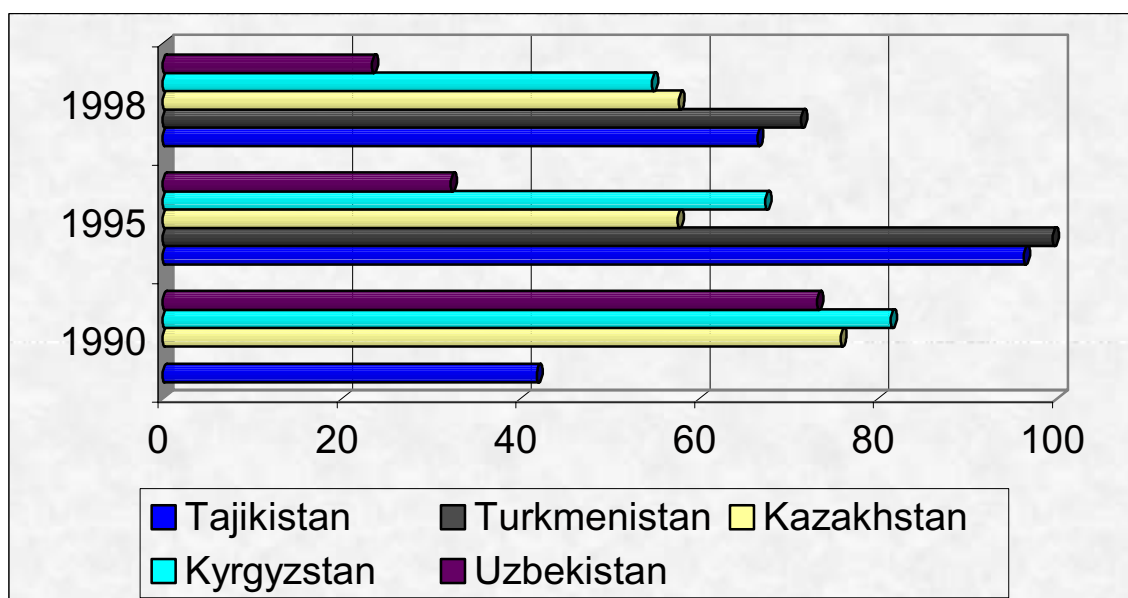
Figure 6
Dynamics of Maternal Mortality Ratio in the Republic of Tajikistan (1990-2000)
 (per 100000 live births)



Source: Republican Center of Medical Statistics and Information, Ministry of Health of the RT

Only since 1997 has a tendency to its decrease become obvious. At the same time its rate is still rather high in comparison with Central Asian countries, except Turkmenistan (Figure 7).

Figure 7
Dynamics of Maternal Mortality in the Central Asian Republics
 (per 100000 live births)



Source: Magazine "CARINFONET", 1999

A high rate of maternal mortality is characteristic for all the regions of the country, which are reflected in Table 8 below.

Table 8

**Dynamics of maternal Mortality Rate by Regions of the Republic of Tajikistan
for 1995-1999 (per 100000 live births)**

Regions	Years				
	1995	1996	1997	1998	1999
Dushanbe	130.5	182.4	92.5	99.6	75.2
Khatlon oblast	93.1	110.2	61.4	60.1	70.4
Sogda oblast	81.2	55.2	72.2	80.2	64.8
GBAO	157.5	122.1	91.8	117.6	70.3
RRS	103.4	45.5	41.4	36.5	46.6
Republic	96.3	84.5	64.6	66.5	53.0

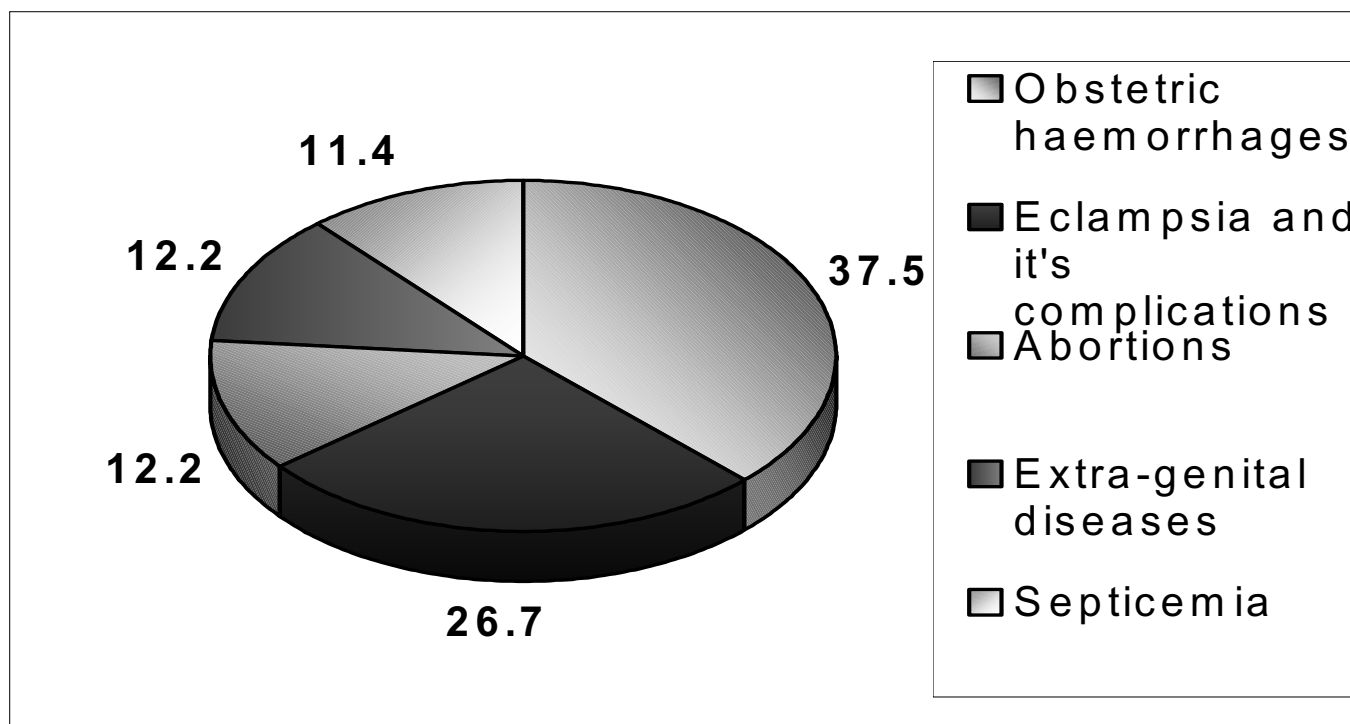
*Source: Republican Center of Medical Statistics and Information,
Ministry of Health of the RT*

Relatively low indicators of maternal mortality in the RRS are, possibly, due to death underreporting in the rayons of Garm zone. This was shown by Rapid Assessment of the current reproductive health situation: for 6 months of 2000 this indicator turned out to be the highest in RRH (85.1 per 100.000 of live births), which is higher than the average indicator in the Republic by 1.2 (68.4 per 100.000live births). The survey showed stable high maternal mortality rate in Sogda and Khatlon oblasts (73.5 and 71.7 accordingly). At the same time high mortality rate was identified in Kulayb (469.0 per 100.000 live births), Shaartuzskiyi (345.0 per 100.000 live births), Dzh.Rasulovskiyi (286.0 per 100.000 live births), Matchinskiyi (175.3 per 100.000 live births) rayons. In Dushanbe the trend is to sustain the mortality rate and it makes up 42.7 per 100.000 live births.

According to formal statistics within the structure of maternal mortality the first place belongs to hemorrhage 37.5%, the second to eclampsia and it's complications 26.7%, followed by abortions and their complications and extra-genital diseases 12.2% in both the cases and septicemia 11.4%.

Figure 8

Structure of Causes of Maternal Mortality in the Republic of Tajikistan for 1999 (%)



Source: Republican Center of medical Statistics and Information, Ministry of Health of the RT

As a result of Rapid Assessment no significant discrepancies have been revealed between the survey data and formal statistics. It has been stated that within the structure of maternal mortality the leading cause is obstetric hemorrhage amounting to (37.3%). Eclampsia incidence and its complications are relatively low (18.6%), which could be explained by possible under-reporting as to the number of this condition (sometimes eclampsia is registered as epilepsy or it is reported that severe eclampsia has become the cause of obstetric hemorrhage).

It should be mentioned that mortality due to abortions has gone down in 2000 (2.3%), which, again, could be explained by under-reporting and wider use of contraception technology, as well as by pregnancy termination at an early gestational stage by means of mini-abortions. Amniotic embolism and pulmonary artery thromboembolism could be a possible interpretation of an unknown death cause.

Figure 9

Structure of maternal mortality causes in the Republic of Tajikistan for 6 months of 2000 (%)

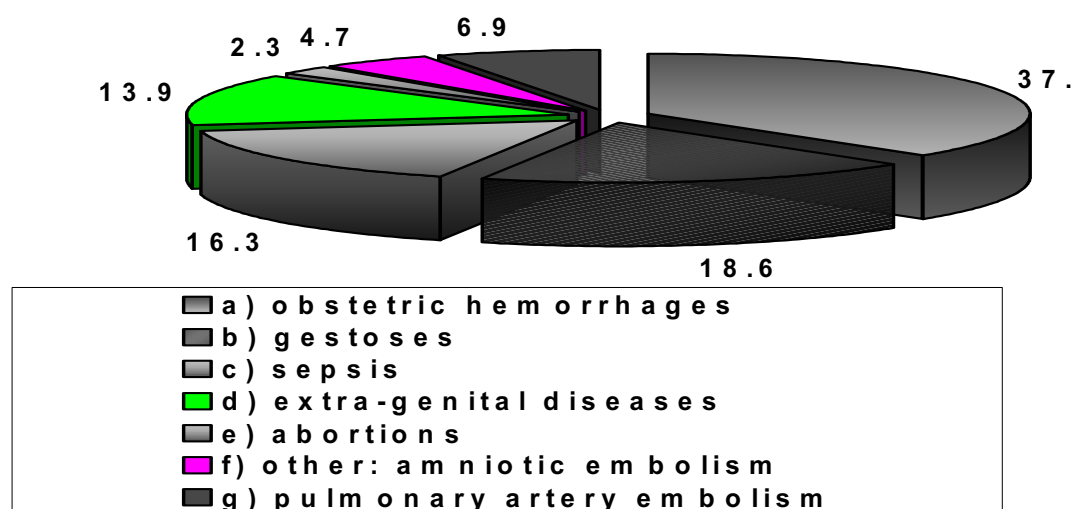


Table 9

Structure of maternal mortality causes by regions in the Republic of Tajikistan for 6 months of 2000 (%)

	Dushanbe	RRS	Sogda oblast	Khatlon oblast	Republic
Causes:					
a) obstetric hemorrhages	-	45,4	26,7	7,1	23,3
b) uterine rupture	-	9,1	20,0	-	9,3
c) eclampsia	-	-	26,7	28,6	18,6
d) puerperal infection	-	18,2	-	21,5	11,6
Including sepsis	33,3*	-	-	7,1	4,7
e) ectopic pregnancy	33,3*	-	-	7,1	4,7
f) extra-genital diseases	33,3*	-	20,0	14,4	13,9
g) abortions	-	-	-	7,1	2,3
h) other: amniotic embolism	-	9,1	6,6	-	4,7
i) pulmonary artery embolism	-	18,2	-	7,1	6,9

* Actually during rapid assessment in Dushanbe there have been revealed two death cases caused by sepsis, 2 cases – by ectopic pregnancy and two cases – by extra-genital diseases.

Analysis of the data shows that severe hemorrhage turned out to be the major cause of mortality among women in RRS and in Sogda oblast; as a rule they have been determined to be problems with hemostasis system and uterine contraction. Women who died due to these causes do not receive adequate intensive therapy both in terms of the volume of care and its timeliness.

Eclampsia is still the leading cause of death in Sogda and Khatlon oblasts.

Extra-genital pathology as the main cause of maternal mortality proved to be true not only in relation to rural women (Sogda and Khatlon oblasts) but also to those in Dushanbe.

It has been determined that another leading cause of death among women is septicemia, especially in Dushanbe and RRS.

An extremely sad factor is a woman's death due to the uterine rupture: in Sogda every fifth woman died due to this condition and in RRS each tenth.

The majority of women are delivered in the maternity hospitals in a very poor condition, which proves the underestimation of this type of pathology at the primary health care level and a low level of sanitary culture among general population.

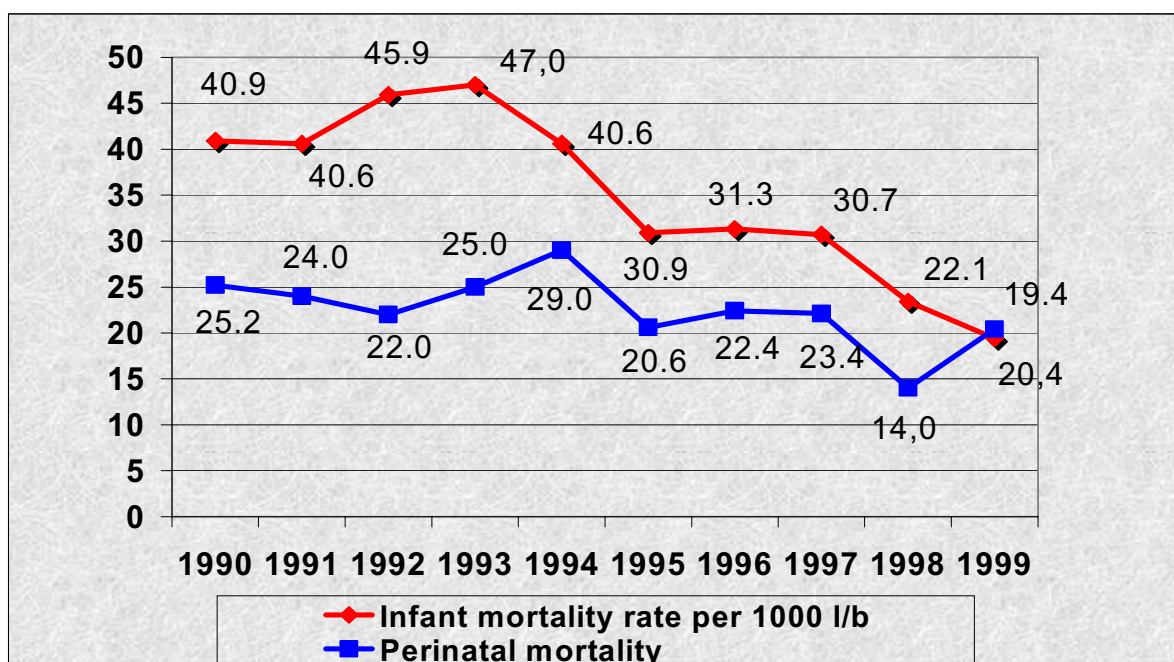
Analyses of maternal mortality revealed the complex nature of its causes. Alongside obstetric causes the following factors matter as well: health personnel qualification, low level of antenatal care, lack of laboratories, lack of essential drug, blood and blood components in the health facilities necessary for urgent care, lack of communication and transportation means, outdated and worn-out equipment in the maternity houses and shortage of up-to-date technical literature for the health professionals. Another factor of importance is the poor standard of life of the female population, shortage of information as to the healthy life standard, low level of awareness as to hygiene and contraception among population, especially in rural areas. Further, the rate of maternal mortality in the cities of the country could be explained by the fact that all the severe cases, both pregnant women and women in labor, are referred from all the rayons to the city maternity hospitals. In most cases this happens too late to save the women and death is normally registered where it actually occurs.

4.2 Infant and Perinatal Mortality

One of the urgent problems of mother and child health care in the country is infant mortality. Infant mortality rate is sustained at a high level (19.4 per 1000 of live births in 1999), regardless of the fact that it has decreased twofold in comparison with 1990. Perinatal mortality rate in the Republic of Tajikistan is also high. In 1999 this indicator made up 20.4% (Figure 10).

Figure 10

**Dynamics of Infant and Perinatal Mortality in the Republic of Tajikistan
(1990-2000)
(per 1000 live births)**



Source: Republican Center of Medical Statistics and Information, Ministry of Health of the RT

This indicator does not differ much from other Central Asian republics: 20.2 in Kazakhstan and Uzbekistan, 22.7 in Kyrgyzstan, 26.4 in Turkmenistan.

Table 10

**Dynamics of Infant Mortality by Regions of the Republic of Tajikistan
for 1995-1999 (per 1000 of live births)**

Regions	Years				
	1995	1996	1997	1998	1999
Dushanbe	48.1	63.0	61.8	32.2	49.7
Khatlon oblast	32.3	32.1	29.1	21.7	14.5
Sogda oblast	39.4	33.7	35.3	30.7	27.1
GBAO	22.9	35.1	23.0	28.0	21.1
RRS	13.8	19.8	19.3	11.8	11.3
Republic	30.9	31.3	30.7	23.4	19.4

Source: Republican Center of Medical Statistics and Information, Ministry of Health of the RT

Infant mortality rate for the last five years within the region is characterized by significant diversity: high rate is characteristic for Dushanbe and Sogda oblast (Table 10), the lowest rate is in RRS. This indicator has gone down by 2.2 in Khatlon oblast, 1.5 in Sogda and is stable in GBAO.

High indicators of infant mortality, registered in 1999 in Dushanbe and Khudzhand (49.7 and 39.7 accordingly), might be explained by better case registration and concentration of sick children in the hospitals of large cities. Regardless of the low indicators in RRS, the highest infant mortality rate was registered in Tavildarinskyi rayon 54.7 %, which is by 2.8 times higher than the average republican level.

Among major causes of infant mortality are respiratory diseases (39.5%), parasitry and infectious diseases, including diarrhea (25.4%) and diseases of perinatal period (17.9%).

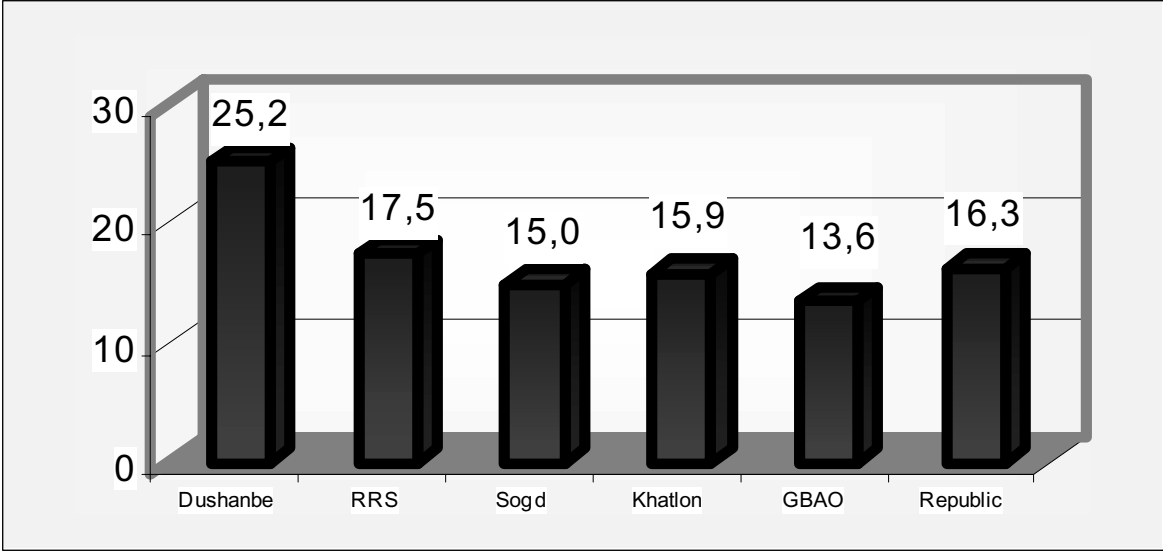
Thus, infant mortality rate in the Republic of Tajikistan is still high and calls for urgent measures to bring it down.

It is widely recognized that mortality is determined by the problems related to perinatal period.

Rapid assessment of the situation for 6 months of 2000 confirmed high rate of perinatal mortality in the Republic, which makes up 16.3%. This might be determined by high incidence of home deliveries and child death under-reporting.

Figure 11 shows clearly that the highest rate is in Dushanbe (25.2%), which could be related to accurate registration of lethal cases and concentration of the most severe cases in the city health facilities.

Figure 11
Perinatal Mortality Rate by Regions of the Republic of Tajikistan for 6 Months of 2000 (per 1000 Live Births)



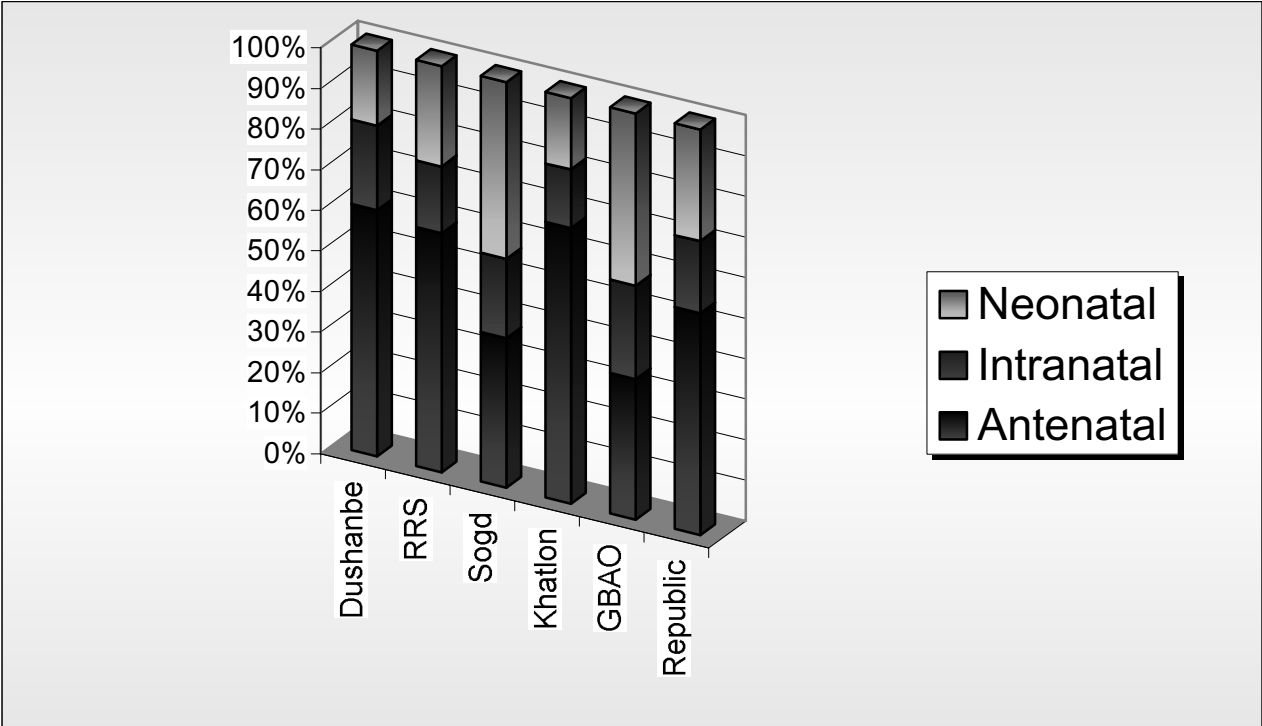
Discrepancy between Rapid Assessment results and formal statistics could be explained by the fact that health facilities data was used in the course of the survey, while formal statistics incorporates information obtained from other public structures.

Review of perinatal mortality structure in the Republic demonstrated that more than half of the fetuses die in the antenatal period (54.8%); intrapartum and postnatal mortality made up 17.7% and 27.5% accordingly (Figure 12). The data collected reflect similar situation in Khatlon oblast, Dushanbe and RRS, while in Sogda and GBAO neonatal mortality prevail within the structure.

The survey revealed a high proportion of term babies among registered stillbirths (53.2%), which does not exclude registration of death of preterm babies as late miscarriage.

Figure 12

Structure of perinatal mortality by regions of The Republic of Tajikistan for 6 months of 2000 (%)



It is necessary to point out that perinatal mortality is mainly determined by the same factors that cause maternal mortality. High incidence of antenatal mortality is due to considerable prevalence of extra-genital diseases, pregnancy complications and low level of antenatal care. Low quality of obstetric and neonatal care, determined by poor provision of equipment and drug supply, are the key factors that determine current mortality situation.

4.3 Abortions

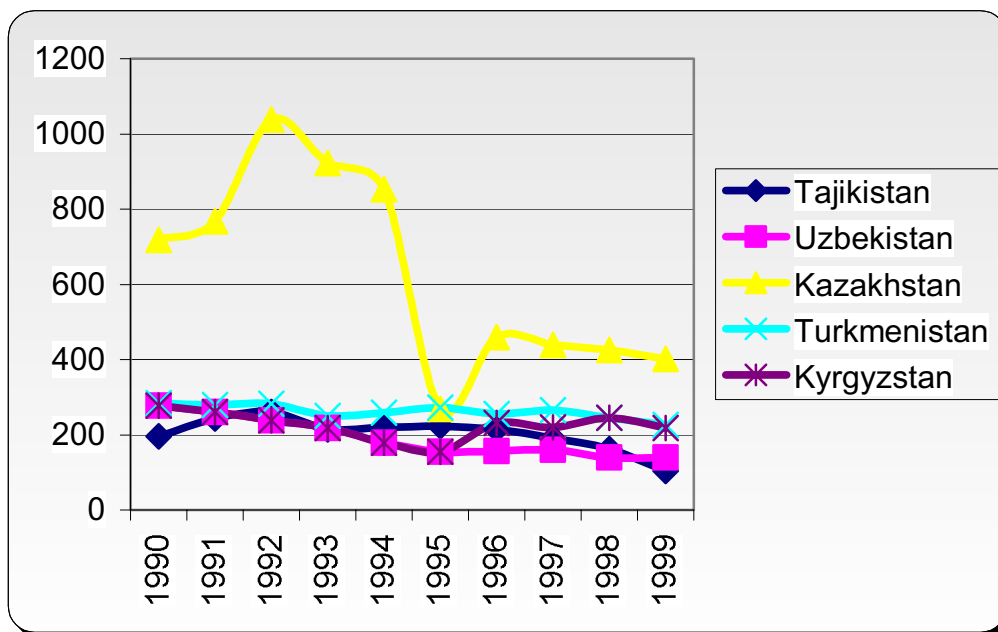
Though there is an obvious trend to decrease, still abortion is the most widely used method of birth control. According to legislation a woman has the right to make a decision on motherhood. It provides legal basis for abortions on medical and social indications (The Law “On the Health Care of the Population”, 1997)

In comparison with other Central-Asian republics the abortion rate in the country is lower (Figure 13). However access to safe abortion is a very important problem.

Medical abortions (routine and urgent) are done mainly in gynecological departments, while mini-abortions are performed in antenatal clinics and Reproductive Health Centers.

Figure 13

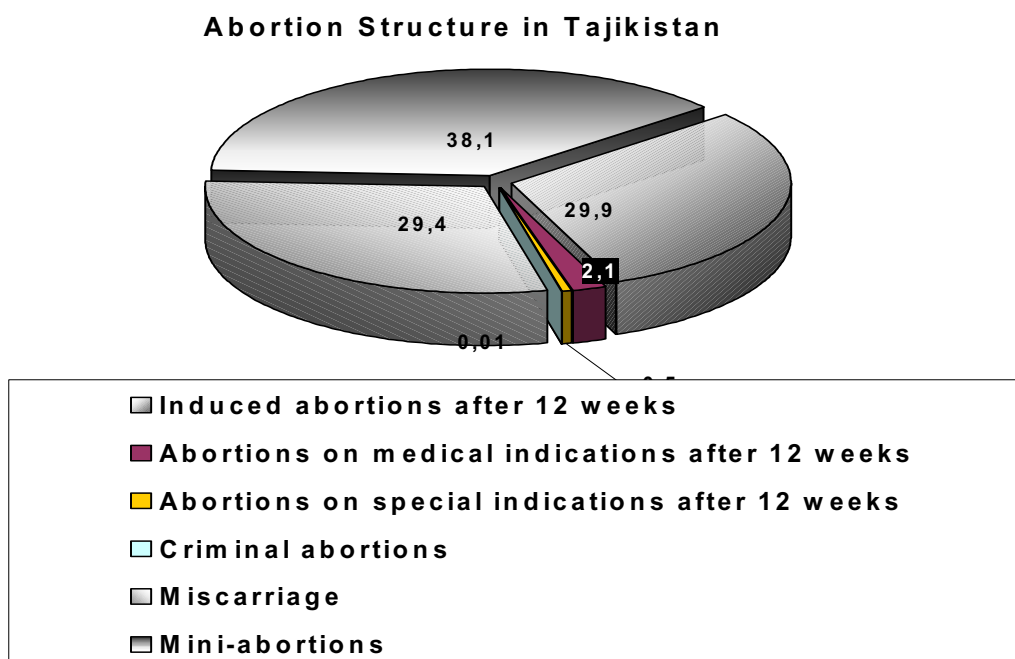
**Abortion Dynamics in Central Asia (1990-1999)
(Per 1000 live births)**



Source: Magazine «CARINFONET», 1999

Results of Rapid Assessment help to identify abortion structure, which is reflected in Figure 15

Figure 15



The high incidence of induced abortions, done in the first trimester of pregnancy (48.3%) and pregnancy termination on medical and social indications is indirect proof of limited access to modern contraceptives. Considerable proportion of miscarriages (47.3%) is an evidence of low health index of women.

The structure of abortions by the regions of the country developed based on Rapid Assessment is reflected in Table 13. It has been determined that prevailing majority of them are done in Sogda oblast (42.9 %).

Table 11

**Abortion Dynamics in the regions of the RT
in 1995-1999 (per 1000 live births)**

	1995	1996	1997	1998	1999
Dushanbe	352,4	345,2	440,6	313,4	112,2
Khatlon oblast	134,2	112,7	103,0	84,0	69,8
Sogda oblast	302,4	253,3	255,6	251,7	123,6
GBAO	231,3	257,1	249,8	114,6	96,7
RRS	124,2	116,5	109,5	103,6	65,4
Republic	223	215,1	191,1	161,5	104,3

Source: Center of Medical Statistics and Information, Ministry of Health of the RT

Official data reveals a tendency to decreased abortion rates in Dushanbe by 3.1, in Khatlon oblast by 1.9, in Sogda by 2.4, in GBAO- by 2.4, in RRH by 1.9, in the Republic by 2.9. Data obtained from Rapid Assessment confirms the improvement of abortion registration: this indicator for 6 months of 2000 is by 1.5 higher than the official data and makes up 144.5 per 1000 live births.

Table 12

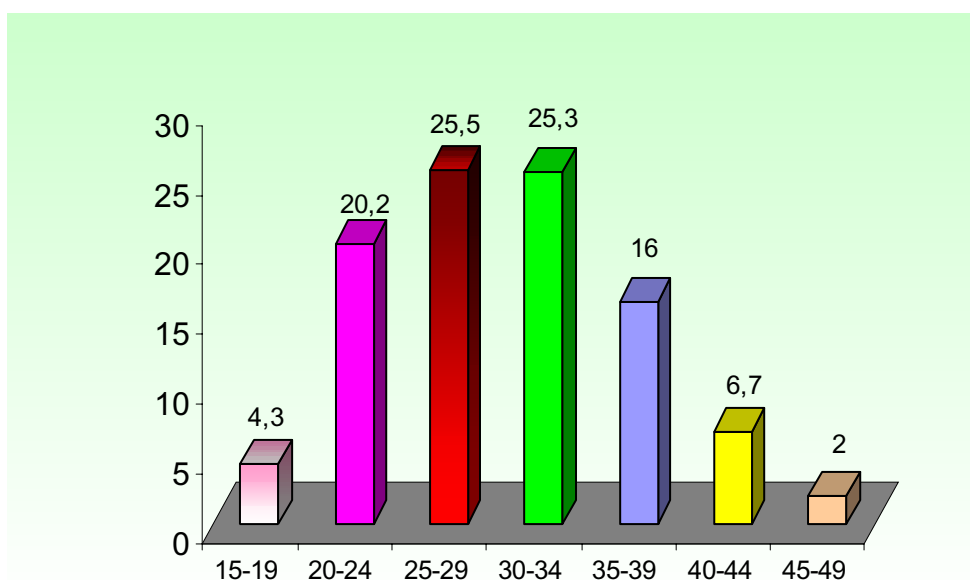
**Abortion structure by regions of the RT
for 6 months of 2000 (%)**

	Dushanbe	RRS	Sogd	Khatlon	GBAO	Republic
Abortion structure:						
a) induced abortions under 12 weeks	39,1	21,0	26,3	36,9	46,2	29,9
b) on medical indications (after 12 weeks)	4,1	3,1	0,6	2,2	8,0	2,1
c) on social indications (after 12 weeks)	0,4	1,4	0,2	0,4	2,6	0,6
d) criminal abortions			0,03			0,03
e) miscarriages	39,8	29,4	23,6	34,2	29,5	29,2
Including:						
under 16 weeks	25,9	21,3	14,7	20,3	21,5	18,8
from 16-22 weeks	9,4	5,5	5,0	8,9	5,4	6,5
f) mini-abortions	16,7	45,0	49,3	26,2	13,8	38,1
Total abortions, (absolute number)	1103	1716	3885	2042	312	9058

Results of Rapid Assessment helped to determine age structure of women, using abortion as a contraceptive means (Figure 14).

Figure 14

Age structure of women making use of abortion in the RT



Obviously, the largest number of abortions is registered among women of reproductive age. No considerable age differences were found between regions, which is reflected in Table 13.

Table 13

Age structure of women, using abortions, by regions of the RT (%)

Age, years	Regions					
	Dushanbe	RRS	Sogd	Khatlon	GBAO	Republic
15-19 years	4,9	3,9	5,5	3,4	0,5	4,3
20-24 years	23,1	12,4	22,4	23,3	16,9	20,2
25-29 years	27,1	27,4	27,8	21,3	24,2	25,5
30-34 years	26,5	30,5	24,5	22,0	22,7	25,3
35-39 years	13,7	16,0	14,7	17,2	23,7	16,0
40-44 years	4,7	7,5	4,2	8,8	11,1	6,7
45-49 years	–	2,2	0,9	3,8	1,0	2,0

There is an obvious trend to increase abortion incidence among adolescents (4.3%), while based on the results of the survey carried out in 1998 in some cities and rayons of Khatlon oblast it was not more than 2.9%. *

Thus, regardless of the stabilization of abortion rate this indicator is still high in the country, which, naturally, requires further actions.

*Results of further survey, carried out within the framework of TAJ/96/PO2 Project « Improvement of Reproductive Health and Expanding Access to Family Planning Services”.

4.4 Contraceptive Care

As of 1990s the most widely used and almost the only available contraception method in Tajikistan was the Intrauterine Device (IUD). Mention should be made that coverage of reproductive age women with contraception made up 3-5%. In 1993 WHO experts determined the requirement of the population in reproductive health services and international aid was initiated.

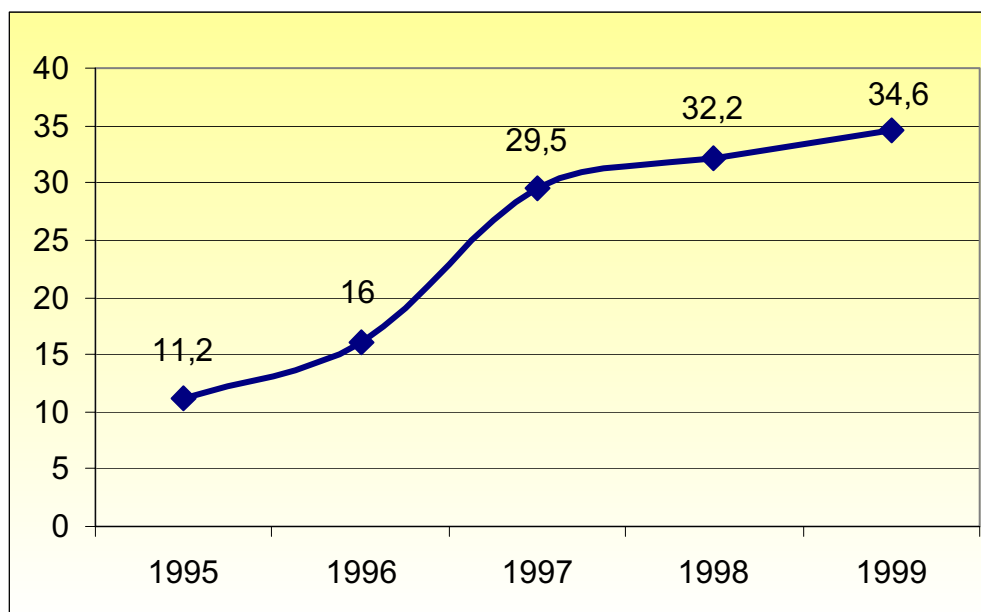
Contraceptive aid in the Republic of Tajikistan from 1993 up to 1999 has been provided by UNFPA on a humanitarian basis and under the project "Improvement of Reproductive Health Services and Expanding Access to Family Planning Services" in the Republic of Tajikistan. During 1994 to 1997 the Republic has received: IUD 502800 pieces, 242000 oral contraceptives convolutes (OC), 1512000 condoms, and 181000 vials of injectable contraceptives (IC). However during the last three years the contraceptive supply has gone down. In 1998 to 1999 the Republic has received IUD 35000 pieces, OC 74600 convolutes, condoms 1353000 pieces, IC 128000 vials, 108000 tubes with spermicide tablets, diaphragm 5472 pieces. In 2000 resource support made up: IUD 20000 pieces, OC convolutes 19200, condoms 432000 pieces, IC 25000 vials, female condoms 14688 pieces.

Basically, family planning services in the Republic are rendered by the RH Centers and reproductive health facilities, which are functioning as independent facilities at the republican, oblast and city levels, in the premises of antenatal clinics in the cities and rayons and as the family planning facilities in maternity hospitals, maternity and gynecological departments. Besides that trained midwives render family planning services in the health houses, SVA and SUB.

The Rapid Assessment survey showed that family planning services, including distribution of contraceptives like OC, IC, condoms and spermicide tablets are available in 34% of the health houses and in 42.3% of SVA and SUB. More qualified help is rendered in CRH and antenatal clinics (IUD insertion, emergency contraception, etc.). It is necessary to point out that within the framework of cooperation between UNFPA and the Government of the Republic of Tajikistan 32.5% of the maternity hospitals have received sets of devices for mini-laparotomy. However, because of the shortage of trained specialists they are not used to the full extent. The survey revealed that voluntary surgical sterilization is practiced in 2.8% of gynecological and maternity departments of the Republic.

Official data prove that contraceptive coverage in the country in the course of the last 5 years increased by more than twofold (Figure 16). This picture is characteristic for all the regions of the country (Table 14).

Figure 16

Dynamics of contraceptive coverage in the Republic of Tajikistan

Source: National Center of Reproductive Health

Table 14

Dynamics of contraceptive coverage, by regions of the Republic of Tajikistan

	1995	1996	1997	1998	1999
Dushanbe	19,3	21,8	29,4	36,6	41,7
Khatlon oblast	14,3	16,9	33,3	26,9	34,3
Sogda oblast	13,2	18,6	20,5	27,6	30,6
GBAO	12,2	23,3	36,3	33,3	36,7
RRS	16,7	18,9	23,0	28,8	31,7
Republic	11,2	16	29,5	32,2	34,6

Source: National Center of Reproductive Health

Surveys done by the Research Institute of Obstetrics-Gynecology and Pediatrics show that reproductive behavior of women in Tajikistan has changed in recent years.* If the fertility rate in 1975 was 6.3 babies per woman of childbearing age, in 1991 5.0, then beginning with 1994 up to 1998 this rate stabilized and is at the level of 3.6 and 3.7. According to Rapid Assessment results fertility rate has gone down and is now 3.1, which may be attributed to widening access to contraceptive services. Thus, based on the review of the delivery histories for 6 months of 2000 it has been identified that the average number of children per woman in Sogda oblast is 2.3 in Khatlon 4.1 and in RRS 3.1.

Analysis shows that regardless of the use of contraceptives and fertility rate decrease, the birth space is still short (less than 2 years) among reproductive age women (12.9%), in Dushanbe 17.9% and in Sogda oblast 13.6%. Alongside with that short birth space makes up

* Results of the surveys done under the framework of TAJ/96/ PO2 Project
« Improvement of Reproductive Health Services and Widening Access to Family Planning Services».

9.9% among women in Khatlon oblast, which is probably due to the implementation of TAJ/96/PO2/ Project “Improvement of Reproductive Health Services and Expanding Access to Family Planning Services”, which has been focused on this oblast.

As a result of Rapid Assessment it has been found that out of the general number of reproductive age women in the rayons covered by the survey 302600 (21.8%) are registered in the reproductive health facilities as contraceptive users. Out of them in Dushanbe their number is 33212 (24.6%), in Khatlon oblast 98148 (20.8%), in Sogda oblast 94486 (21.4%), in RRH 65056 (22.4%) and in GBAO 11698 (23.7%).

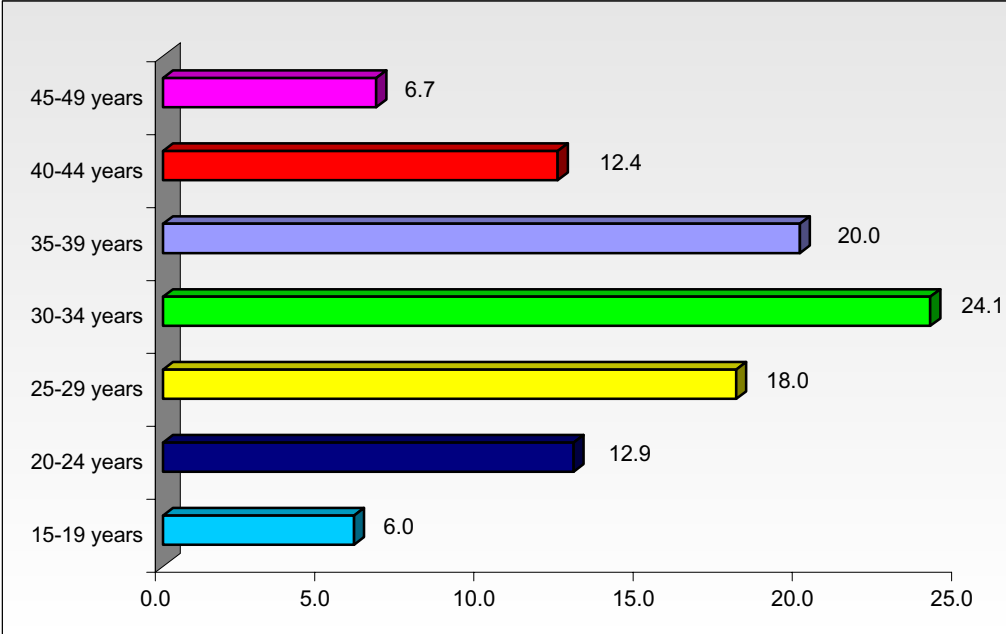
Hence, contraceptive coverage, which implies the use of any type of contraceptive during one year and more is still lower, which reflects real situation in the Republic in contrast to the official sources.

It has been determined that contraceptive coverage of “high risk” women is inadequate, which is due to the limited contraceptive resources: 35.7% of women with extra-genital diseases are covered by contraception, 26.8% with some obstetric problems in the history, 25.2% multiparous women, 16.0% with the birth space less than 2 years, 3.5% frequent abortion users. .

Rapid Assessment made it possible to determine age structure of female contraception users (Figure 17).

Figure 17

Age Structure of Female Contraception Users



A positive factor here is the use of modern contraception technology at a late reproductive age (39.1%).

At the same time, contraception coverage of adolescents is still low (6%), though abortion rate among them is growing. Through previous surveys it has been identified that adolescents are not well informed about contraception methods. Research done by the Institute of Obstetrics-Gynecology and Pediatrics has revealed that 34% of adolescents have extra-genital diseases, 24% menstrual cycle disorder, 19.6% inflammatory diseases of genital organs.** A considerable proportion of women-respondents were characterized by early start of sexual relations. Hence, the health of adolescents is a serious problem for Tajikistan. These young people are in need of help as to contraceptive services.

Rapid Assessment results made it possible to determine the structure of contraceptives used (Table15).

Table 15

**Structure of contraceptive technology used,
by regions of the Republic of Tajikistan**

	IUD	OC	VSS	IC	LAM	Condoms	Spermicides	Diaphragm	NFPM
Sogda oblast	91.3	2.0	0.3	1.2	3.8	0.4	0.03	0.1	0.8
Khatlon oblast	71.7	5.7	0.1	7.1	6.9	3.7	1.7	0.2	2.9
GBAO	55.5	14.9	0.1	2.2	4.6	14.7	8.4	Data not available	Data not available
RRS	82.2	5.6	0.1	6.0	2.1	2.5	1.5	Data not available	Data not available
Dushanbe	91.2	2.7		6.0	Data not avail.	1.1	0.02	0.01	Data not available
Republic	81.6	4.6	0.1	4.7	4.1	2.4	1.2	0.1	1.2

It is clear that the IUD is still the most commonly used (81.6%), and the use of hormonal contraceptives makes up 9.3%. Mention should be made of the fact that LAM is not registered well (4.1%) though this is one of the widely used methods of pregnancy prevention.

Results of the survey show that during the last 6 months 25157 patients started using contraceptives, which makes up about 1.7% of fertile age women of the Republic: OC-4228 women, DMPA - 4373, VSS -115, IUD -12817, condoms -2621, spermicides-1003.

The proportion of condoms proved to be low (2.4%), while STI incidence in the Republic is growing.

Rapid Assessment showed that regardless of the fact that training courses are organized for specialists working in the field of reproductive health the principles of counseling are not observed. This is proven by the ratio of primary and repeated visits: in GBAO it is 1.8:1., in

**Survey results got within the framework of TAJ/96/ PO2 project
«Improvement of Reproductive Health and Expanding Access to Family Planning Services».

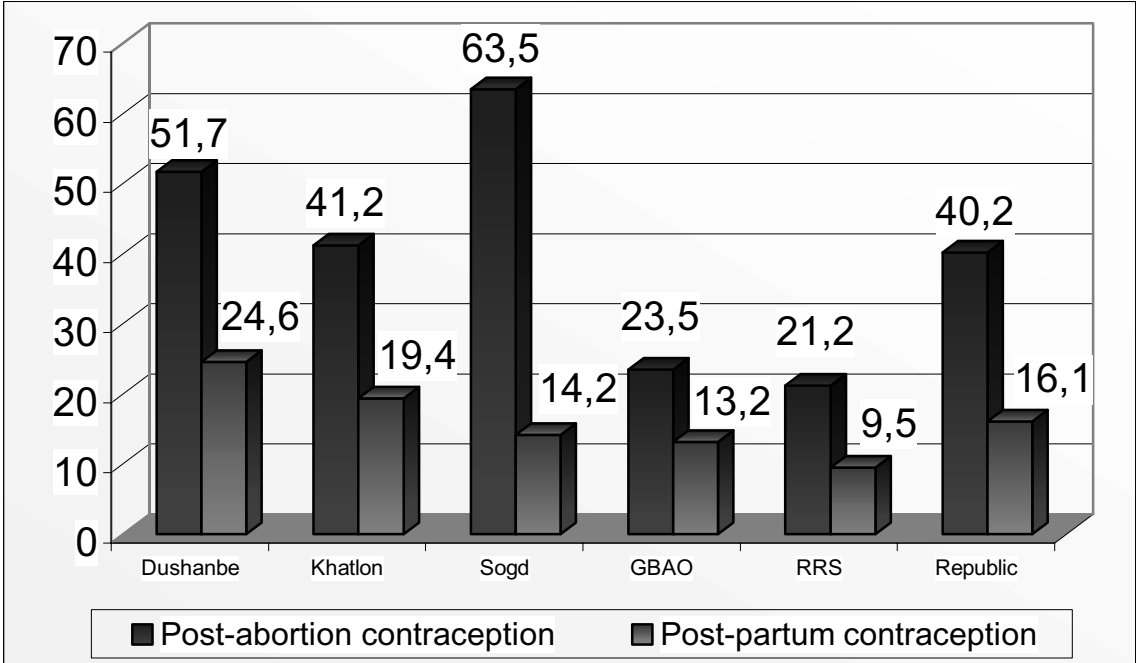
RRS 1.3:1, in Sogda oblast 1.5:1. In Khatlon and Dushanbe this indicator is much better (1:2.6 and 1:2 accordingly). At the same time on the whole in the Republic this ratio is 1:1.3.

One of the reasons of a limited access to contraception on the part of the population is inadequate continuity on all the levels of reproductive health care.

Based on Rapid Assessment outcome it has been found that regardless of low health index of women, short birth space and high incidence of obstetric complications and abortions, post-partum and post-abortion contraception coverage is low (16.1%), which is reflected in Figure 18 below.

Figure 18

Post-abortion and post-partum contraception coverage, by regions of the Republic of Tajikistan for 6 months of 2000(%)



Thus, review of contraception services proves the necessity to further expand access to quality services in the field of family planning.

4.5 Breastfeeding

Breastfeeding is one of the most important factors of neonatal, infant and child periods. Within the framework of ongoing reform, one of the priorities for the Ministry of Health of the Republic of Tajikistan is breastfeeding support and promotion. In 1994 wide scale activities on early attachment were initiated. They proved to have a very positive impact on both the health of the newborns and of the early age children: among exclusively breast-fed babies under 6 months only 5.3% had diarrhea, 36.5% ARI, while among non-breast-fed babies these conditions accounted for 91.6% and 100% accordingly. During the last year the number of newborns that have been attached to mother's breast within the first two hours after birth increased twofold: in 1997 their proportion was about 52%, in 1999 92.5%, while in Dshanbe it was 98.2%.

High efficiency of the breastfeeding program is confirmed by BFHI hospitals. Maternity hospital №3 in Dushanbe, oblast and rayon maternity hospitals in Khudzhant, Sogda oblast, and a clinic in Research Institute of Obstetrics, Gynecology and Pediatrics have been awarded BFHI certificates.

According to the results of reproductive health rapid assessment in the Republic of Tajikistan from 1997 up to 2000, 123 reproductive health professionals were trained on issues of breastfeeding, which is not enough for a wide scale implementation of the program. It means that the problem of breastfeeding education and training is still urgent for our country.

5. Scope and quality of reproductive health care

5.1 Registration and documentation

Maintenance of registration and reporting documents as well as a system of data collection in the reproductive health facilities is an important and integral part of their functioning, which determines the relations of the health facilities with the population. This is why one of the directions of Rapid Assessment was to study the availability of approved of medical documentation forms and the quality of their maintenance because they ensure the system of surveillance over the patients.

While analyzing the data collected it was found that all the health facilities lack medical documentation forms. In general form supply makes up from 31.2% to 84.6% (Attachment 12), and the quality of their maintenance is very poor. This is due to the fact that in different health facilities medical documentation is arranged in different ways (sometimes important data is to be found in some registers, simple notebooks, which depends on what the facility is able to buy).

Besides, the rapid assessment made it possible to state that standard forms of medical documents, approved of by the Ministry of Health, do not reflect all the indicators that would make it possible to realistically assess reproductive health of the population.

The number of registered patients, which address facilities for medical help, reveals that the proportion of those seeking help is very low; the number of visits in the health houses is 9-11 people a day, in rural doctor ambulatories - 14-16, in antenatal clinics - 35-45 and in reproductive health centers - 10-12. This is also explained by inaccurate registration of the patients applied.

Randomized analysis of documentation available allowed detecting inadequate system supervision (from 30% to 55%) and inadequate number of repeated visits (42.3%-68.3%) of patients. A number of factors may cause this: poor staffing of health facilities, inadequate attitude on the part of the health workers to their responsibilities, poor communication system and etc.

Thus, lack of adequate registration and documentation system in reproductive health facilities makes it difficult to collect and analyze data in the proper way. This fact in its turn reflects negatively on the real situation assessment quality in the field of reproductive health of the population.

5.2 Antenatal Care

One of the main principles, ensuring safe motherhood, is good quality antenatal care. Assessment revealed that antenatal services are available in the health houses, in SUB, SVA, CRH, antenatal clinics and big city outpatients. It has also been revealed that about 69% of pregnant women are registered in the health facilities, subordinated to CRH, including 45% of those registered in the health houses, SVA and SUB. Early registration was found out only in 11% of them, which is one of the factors of late diagnostics of complicated pregnancy.

It was not possible to thoroughly analyze regularity of antenatal surveillance due to the lack of adequate information. Even in cases of good accessibility of health facilities the number of visits ranges from 1 to 15 (on the average - 3-4). Almost half of pregnant women (46.5%) are not registered; 12% of pregnant women have not more than 3 antenatal visits and only 9.2% of pregnant women are characterized by regular surveillance.

Probably lack of registration is determined by the fact that health facilities do not have adequate number of standard forms (Form 111/Y «Personal Card of a Pregnant Woman and a Puerpera», «Individual Exchange Card of a Pregnant Woman, Puerpera and a Woman in Labor»).

Antenatal care is more accessible in rayon centers, cities and the capital, which could be explained by a better-developed communication system.

Results of Rapid Assessment showed that in the rural area care is mostly provided by midwives, and quite often only by way of home patronage. Examinations by obstetrician-gynecologists as well as by other specialists (physician, dentist) are quite rare. In the cities surveillance is done mainly till 30-34 weeks of pregnancy and, after they get exchange cards, the majority of pregnant women do not come to antenatal clinics.

On the whole doctors provide antenatal care in 60% and mid-level health workers in 40%.

Analysis of the quality of antenatal care showed that there is considerable difference between the health care levels. In the health houses, SVA and SUB care includes weight, blood pressure and hemoglobin level control. It also includes pelvimetry, other external measurements and fetal heart rate control. It should be mentioned that only 14.1% of these facilities have the possibility to determine hemoglobin level due to the lack of hemometers and quality control of blood pressure is possible only in 67.1% of the health facilities. The rest of them are able to control only systolic pressure due to the lack of stethoscopes. Good quality and specialized care is available at the level of CRH, city, oblast and republican facilities. Ultrasound screening is possible only at the level of rayon and city health facilities. It should be mentioned that only 40% of antenatal clinics are equipped with devices necessary for screening. Tests for the presence of hemotransmissible infections (HIV, syphilis, Viral Hepatitis), bacteriologic and bacterioscopic tests are not done on a regular basis due to the poor provision of health facilities with essential supplies. It has been determined that microscopes and reagents are available only in 22.4% of reproductive health centers. Besides that the possibility to collect test samples is very much limited at all the levels: Folkman devices for vaginal smear collection is available in 36.6 to 58.6% of health facilities, glass slides- from 25.4% to 62.1% (Attachment 1-5).

Ferrous sulfate preparations are available in 76% of the health houses, in 75% of SVA and SUB, in 68% of rayon and city health facilities. However it seems necessary to additionally study accessibility of this medication for the targeted groups, given high prevalence of anemia among pregnant women.

Medical education among pregnant women (mother school) is not practically carried out. Only few classes are organized in some rayons and city antenatal clinics, and again, only in the third trimester.

Thus, poor awareness of the population as to the importance of antenatal care, the first signs of pregnancy complications, limited access to care and inadequate activity of health workers in terms of to early detection of pregnant women determine low level and poor quality of antenatal care of pregnant women.

It is widely recognized that safe motherhood can be achieved through constant antenatal care and continuity between outpatient and in-patient facilities.

Analysis of the bed capacity use in the health facilities or departments for pregnancy pathologies proved ineffective use of these beds: annual bed use in rayon hospitals made up 30%, in city hospitals - 45-50%, in oblast 50-55% and in the republican 68%. Regardless of low health index of women and high rates of maternal and perinatal mortality, (Table 15) the surveyors have registered low rate of pregnancy complications (from 17.5% to 38.6%). This situation could be explained by a number of factors: lack of adequate diagnostics, inadequate qualification of specialists, etc.

According to official sources more than 51.5% of pregnant women are considered to be risk group women. It should be mentioned that ante-partum hospitalization rate makes up 1-2% in the rural area and 8-10% in the cities of the Republic of Tajikistan. Only 2.3% of women have been referred from antenatal clinics. In the rest of the cases hospitalization was urgent, due to the onset of labor or to complications development.

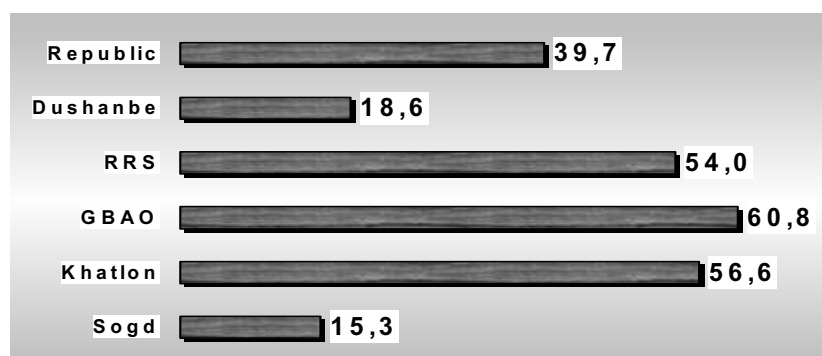
Thus, the survey confirmed poor quality of antenatal care, determined by late and incomplete identification of high-risk group pregnant women and late provision of the health care.

5.3 Clean and Safe Delivery

The growing incidence of home delivery is becoming quite a problem. In some regions of the Republic it makes up 80%. The concerning factor about this is that in the majority of cases the conditions in which home delivery takes place, are unsafe, it is not assisted by professionals – midwives or doctors. Quite often deliveries are poorly managed, which results in the development of severe complications like uterine rupture, abruptio placentae, hypotonic hemorrhage in the puerperium and etc. In other words, these are conditions that require urgent referral and hospital care and determine high maternal and infant mortality rates.

Results of Rapid Assessment of the current status of reproductive health in the Republic of Tajikistan confirm a considerable proportion of home deliveries in GBAO (60.8%), in Khatlon oblast (56.6%), in RRS (54.0%) and in the Republic on the whole 39.7%. Out of the total number of deliveries home ones account for up to 90% in the rural area, up to 40-50% in the rayon centers and up to 20% in the cities (Figure 19).

Figure 19

Proportion of home deliveries, by regions of the RT (%)

Despite the fact that home delivery incidence in the capital is relatively low (18.6%), only 29.2% of them are assisted by a health workers. Similar situation is reported in GBAO and RRS (Table 16). As it is reflected in Table 16, the prevailing majority of women after births are not hospitalized.

Table 16

Proportion of home deliveries assisted by the health workers, including those without hospitalization in an after birth period

Oblast	TOTAL Home deliveries		Including those			
			Assisted by the health workers		Without after birth hospitalization	
	Absolute number	% of the total number of deliveries	Absolute number	%	Absolute number	%
Sogda oblast	3113	15.3	1786	57.4	961	53.8
Khatlon oblast	11025	56.6	4028	36.5	3150	78.2
GBAO	1150	60.8	824	71.7	632	76.7
RRS	8400	54.0	3907	46.5	3169	81.1
Dushanbe	1200	18.6	350	29.2	276	78.9
Republic	24888	39.7	10895	43.8	7650	70.2

Close study of the cause structure of home deliveries in the Republic showed that economic factors are the main cause (36.1%), then goes lack of transportation (25.3%), obstetric conditions (20.2%) and other (18.4%), as it is reflected in Figure 20.

Economic factors are more expressed in RRS (45.2%), lack of transportation means in GBAO (63.1%) and Sogda oblast (41.8%). Obstetric conditions are similarly expressed in all the regions with the exception of GBAO. In Khatlon oblast the aforementioned causes seem to have an equal importance.

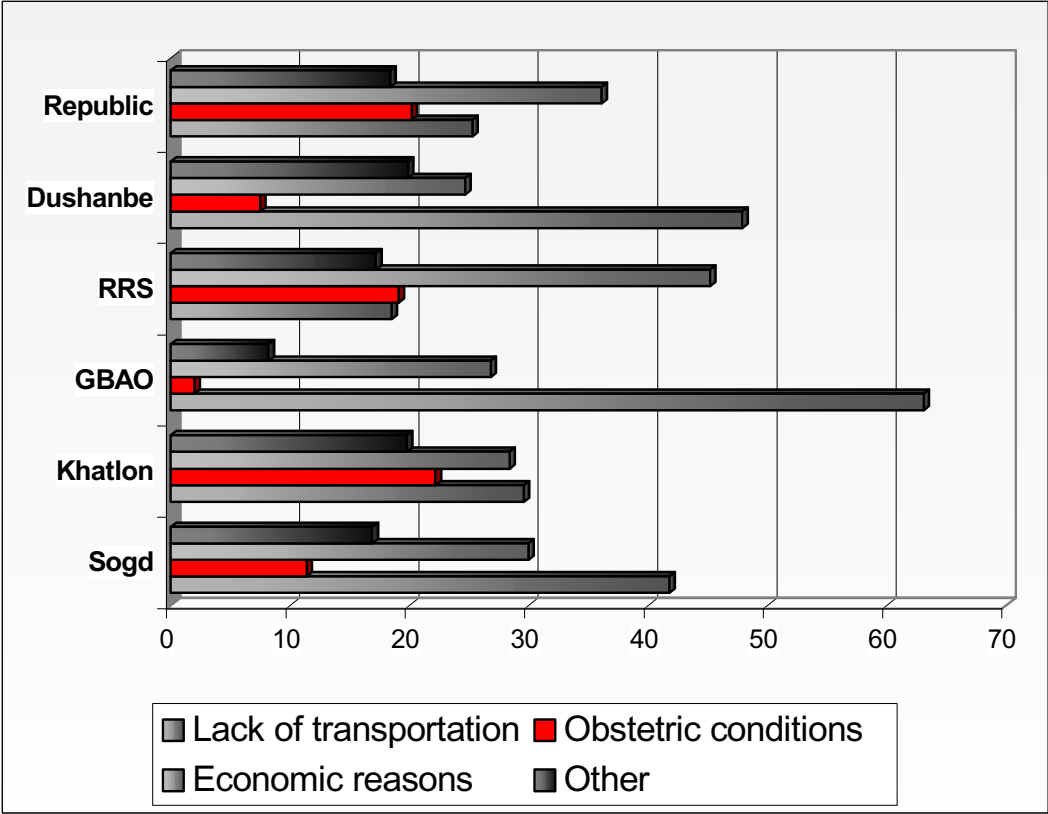
Lack of documentation of home deliveries does not make it possible to analyze the degree of their safety and make judgement as to reproductive loss indicators, though every third delivery in the Republic takes place at home.

Given high incidence of home deliveries, it is necessary to widen access of the population to safe delivery through retraining health personnel and providing them with adequate technology.

In the course of the Rapid Assessment it was identified that 62680 deliveries took place in the space of 6 months of 2000. At the same time the incidence of complicated deliveries in the entire Republic made up 16.5% with some variations from 12.9% in GBAO to 32.3% in Dushanbe.

Figure 20

Reasons given for home deliveries



High proportion of pathological deliveries in the capital could be attributed to better detection and registration of complications. A proof to that is the high incidence of obstetric surgical interventions in Dushanbe, which makes up 12.2%.

Analysis of physiological delivery monitoring revealed the following (Table 17).

Table 17

Observation of necessary interventions in case of physiological delivery

Intervention	Standard recommended by the MoH RT	Actual interventions (%)
Vaginal examination	Every 4-6 hours	67
Fetal heart rate	Every hour	25
Blood pressure control	Every 3-4 hours	25
Pelvimetry	100%	46
Assessment of an expected fetal weight	100%	54
Antenatal data recording	100%	35
Assessment of a newborn by Apgar score	100%	30
Blood loss assessment	100%	12

“Results of Rapid Assessment of Reproductive Health Care in the RT”

Partographs are not used due to the lack of forms.

It has been revealed that pregnant women and those in labor with different complications are to be found practically in all the health facilities. However the largest number of them is registered at the CRH level. The structure of these complications is determined by: extra-genital pathology (60.4%), eclampsia (11.3%), obstetric hemorrhages (4.1%), which is characteristic for all the regions of the Republic (Table 18).

Table 18

Complications at birth and in post-partum period (%)

Condition	Dyshanbe	RRS	Sogda oblast	Khatlon oblast	GBAO	Republic
EGP	78.9	57.2	54.2	59.7	62.4	60.4
Hemorrhage	4.3	3.8	4.1	3.6	2.5	4.1
Eclampsia	12.1	10.2	15.6	8.8	7.8	11.3
Septic complications	0.8	0.6	0.9	0.5	0.2	0.5

Mention should be made that such factors as late recognition of eclampsia, its severity underestimation and inadequate therapy alongside with high incidence of associative eclampsia forms strongly determine the proportion of this pathology within the structure of maternal mortality. Less than half of them have been registered in antenatal clinics (46%).

Surveys show that obstetric hemorrhage rate in Tajikistan makes up 4.1%, while within the structure of maternal mortality causes it is responsible for 46.1%¹ of all the cases. However one of the main causes of death in case of hemorrhage is inadequate and late blood replacement, which is a proof of considerable problems in blood bank organization.

Rapid Assessment made it possible to determine high rate of septic complications after cesarean section (34.3%) and that of laparotomy because of septic complications (55.8%). Review of medical documentation proves inadequate alertness to infection development even in case of such a risk, late surgical intervention, late diagnostics, inadequate preventive measures and therapy of septic complications. It should be mentioned that a considerable part of septic complications develop at the background of pregnancy and delivery and also at that of extra-genital pathology (78.6%) .

It has been determined that anemia cases make up from 40 to 80% in different level maternity facilities. In the majority of cases anemia therapy and prophylaxis is inadequate, which is obvious from similar anemia incidence in pregnant women as well as in women in labor and in post-partum period regardless of the care level.

The results of the survey implemented by the Research Institute of OG&P* show that surgical interventions in childbirth in the Republic make up 12.6%, and the lion share of these interventions takes place in the city facilities. It is known that cesarean section rate is about 6.3% and it is different in different regions. Research demonstrated that prevailing indicators for abdominal* delivery were severe gestoses, which make up 28.5% (eclampsia was reported in 69.2%) and also abruptio placentae (25.3%). In some cases cesarean section was predetermined by placenta previa (5.5%), scar on the uterus after cesarean section, uterus rupture (8.8%), clinically contracted pelvis (6.6%), pathological fetus presentation (transverse, face, pelvic, pelvic in combination with contracted pelvis or large fetus) 5.5% and by extra-genital pathology 3.3%. In 7.7% of cases cesarean section was performed due to a combination of several relative indicators (primipara age, anatomic contracted pelvis, problematic obstetric history, labor abnormalities) - 7.7%. The majority of the women had urgent cesarean section (93.6%), it implies that they have not had adequate examination due to the shortage of time and given developing complications.

Detailed analysis of operation protocols and narcosis charts revealed that every 7th woman (14.8%) developed some complication, determined by the technology used and by the qualification of surgeons.

It has turned out to be very difficult to assess the use of such interventions in delivery as forceps and vacuum extraction. Only in 3.2% of the health facilities there is a functioning vacuum-extractor. Comparison of obstetric and extra-genital pathology rates with the rate of the aforementioned interventions indicates low professional level of the personnel as a possible explanation of the phenomenon.

* Research Activity Report, TIOG&P, Dushanbe, 2000.

Comparison of pregnancy, delivery and post-partum period complications rates with the data on services rendered made it possible to conclude that the majority of women (27.9% of the general number of deliveries for 6 months) are not covered by any observation and care due to the lack of contraception and do not have a chance for their own rehabilitation.

5.4 Essential Newborn Care

Essential newborn care (ENC) is provided at all the levels of obstetric care. It includes airways cleaning, umbilical cord treatment, gonoblenorrhoea prophylaxis and weight and length control.

Results of the Rapid Assessment of reproductive health care proved inadequacy of the current ENC. It has been determined that 80% of the health facilities use rubber balloons for cleaning airways, while about 69% of them are equipped with electric sucking devices (due to the lack of constant electricity supply). This factor is very important in terms of complication development in neonatal period. At the same time intensive and resuscitation help to the newborns is limited because of the lack of incubators in more than 81.7% of the facilities, perfusers in 76.1%, beds with heating in 63.4%, and pediatric oxygenators in 9.8% of the hospitals of the Republic.

The majority of post-partum departments and wards are rooming-in ones. Early attachment of the babies to mothers' breasts is practiced in all the health facilities.

Thus, problems identified in the course of the Rapid Assessment of reproductive health system reflect real situation in the field of essential neonatal care in the country, which requires urgent measures for its improvement.

6. CONCLUSIONS

1. In the Republic of Tajikistan there is a wide network of reproductive health facilities, which is able to render health services at all the levels providing there is adequate staffing and equipment.
2. Reproductive health facilities are not functioning well due to financial constraints. Financial capacity necessary to renovate, to do capital repair and to start new health facilities is very much limited. Further, the use of bed capacity is ineffective, which is determined by poor supply and communication systems (power supply, heating, telephone communication, transportation, fuel-lubrication materials and etc.).
3. Regular knowledge updating and qualification upgrading on the part of the reproductive health personnel is problematic due to the emerging social and economic problems. At the same time post-graduate education is necessary in order to bring up professionalism and technical skills.
4. A disproportion in staffing and in fact a shortage of health personnel in the rural area, which determine the accessibility and quality of health care, have been revealed in the course of the survey.
5. Worn out equipment, shortage of essential drugs and contraceptives at all the levels of reproductive health care are in the way of rendering timely and good quality health services in the reproductive health facilities. Incomplete sets and inadequate quality of health services in the reproductive health facilities of the Republic are unable to meet the needs and requirements of the population.
6. An obvious decrease of professional activity of reproductive health facilities as well as the activity of the population determine their low visiting rate and inefficiency of their monitoring.
7. Desperate shortage of documentation forms and poor quality of information collection are reflected upon the reliability of reports submitted. Current documentation forms do not contain enough information to be able to assess the reproductive health of the population.
8. Inadequate antenatal care and poor assessment of pregnancy development are due to inadequate equipment and communication systems in the health facilities.
9. High rate of maternal and perinatal morbidity and mortality are determined by poor quality of antenatal care, limited access to essential obstetric care, inadequate detection of high risk women and their contraceptive coverage.
10. Rather high incidence of pregnancy and delivery among adolescents and their low contraceptive coverage have been stated by the assessment.
11. High incidence of home deliveries, including those without any professional assistance, is an important underlying reason for worsening of the health of fertile age women.

7. RECOMMENDATIONS

Recommendations suggested in this paper are arranged into major groups. In this way it will be easier for the Ministry of Health of the Republic of Tajikistan, for local health departments and centers of reproductive health to use them for the rationalization of their activity.

I. Organization and management of reproductive health facilities:

1. To develop and implement an area plan of health facility development in the Republic of Tajikistan up to the year 2010 (to determine priorities, goals and strategies for all the levels based on the needs identified).
2. In line with the “Strategy of the Health Care of the Population in the Republic of Tajikistan up to the year 2010” to develop and implement principles of modern human resource management of Reproductive health facilities with the aim to improve reproductive health care, to bring up its efficiency.
3. To revise current norms for reproductive health facilities, methods of their activity analysis, a list of approved of documentation forms, regulations as to their supply, to standardize and to simplify them in line with the recommendations of WHO experts, which have visited Tajikistan, and WHO documents “Selection of Reproductive Health Indicators”, 1998 and “Monitoring Reproductive Health, Selecting a Short List of National and Global Indicators”, WHO, 1997.
4. To integrate ante-, intra- and post-natal care according to WHO strategy (“Essential Care Practice Guide for Pregnancy, Childbirth and the Newborn”. WHO, 1997).
5. To develop a patient monitoring system by way of using new managerial mechanisms, restructuring antenatal clinics in the cities and rayon of the Republic into unified Reproductive Health centers in order to ensure their more effective work, making use and adopting WHO Guidelines «Basic Elements of Obstetrics Care at First Referral Level», WHO, Geneva, 1991).
5. To ensure preparedness of the health facilities to render urgent health care in cases of major obstetric pathology.
6. To expand the volume of reproductive health services for adolescents, to use methods of social marketing in order to disseminate contraceptives among them based on WHO documents “Pregnancy in Adolescents – Health Problems and Health Care”, 1998. To set up confidential counseling facilities for adolescents to advise them on safe pregnancy and STI prevention issues.

II. Medical Education and Post-graduate Training

1. To set up a Steering Committee under the Ministry of Health of the Republic to coordinate activities on training and retraining of reproductive health specialists carried out by public and non-governmental organizations with the aim to prevent non-coordinated or hectic educational activities in the given field.
2. To develop a cross-sectional educational program on reproductive health problems with the involvement of the Ministry of Education, Ministry of Justice, Ministry of Culture and Ministry of Health.
3. To develop flexible system and methods of post-graduate training, including development and implementation of module courses. To organize courses for obstetrician-gynecologists on safe motherhood, breastfeeding, and essential newborn care. Additionally to organize courses for midwives on normal and obstructed labor and hemorrhage in line with the WHO Guidelines on “Basic Elements of Obstetric Care at First Referral Level”, 1991, Module training of midwives, 1996 and with the “Life-saving Skills Manual for Midwives”», American College of Nurse-Midwives, Washington, D. C., USA., 1998
4. To develop a plan of financial and technical support with the involvement of International organizations and Research Institute of Obstetrics, Gynecology and Pediatrics, Tajik Medical Institute of Post-graduate Medical Staff Training, development of methodological recommendations and manuals on priority problems of reproductive health in line with the WHO recommendations “Mother-baby package” and “Improving Access to Quality Care in Family Planning»». WHO, 1996.
5. To develop and adopt standard clinical protocols of care in pregnancy, labor and post-partum period, making use of WHO documents like “Essential Elements of Obstetrics Care at First Referral Level”». WHO, 1991, Geneva, 1991. To include standard schemes of diagnostics and therapy on reproductive health into medical university curricula, “Quality Development in Perinatal Care – The Obsquid Project WHO/EURO/EUR/ICP/QCPH/030203.

III. Medical equipment, drugs and contraceptive supply

1. To involve local Khukumats of the Republic and International organizations (World Bank, ADP) into the procurement and supply of reproductive health facilities with transportation means (cars, bicycles, horses and etc.), with heating means (procurement of fuel to be able to start autonomous boiling houses, to buy electric heaters, to provide coal and woods) and with repair-rehabilitation works.
2. To accept international coordination of supplies of drugs, contraceptives and medical equipment to the Ministry of Health on the part of WHO office in the Republic of Tajikistan. To introduce financial mechanisms necessary to ensure access to essential drugs, contraceptives and equipment (per capita financing, revolving drug fund).

List of Literature used:

- 1) MoH RT, WHO, UNFPA “Results of the Survey of Reproductive Health of Women in some cities and rayons of Khatlon oblast of the Republic of Tajikistan” . Dushanbe, 1998г.
- 2) MoH RT, CMSI, RT “Health of the population and health care in the Republic of Tajikistan” . Dushanbe, 2000.
- 3) «Basic elements of obstetrics care at first referral level», WHO, Geneva, 1991 г.
- 4) CARINFONET». Bishkek, 1999 г.
- 5) «Essential elements of obstetrics care at first referral level». WHO, 1991.
- 6) «Essential care practice guide for pregnancy, childbirth and the newborn».WHO, 1997 г.
- 7) Guidelines «Improving access to quality care in family planning». WHO, 1996 г.
- 8) «Guidelines for monitoring the availability and use of obstetric services». WHO, 1997 г.
- 9) «Guidelines for reduction of maternal mortality». WHO, 1999 г.
- 10) «Life-saving skills manual for midwives» American College of Nurse-Midwives, Washington, D. C., USA., 1998.
- 11) «Mother-baby package». WHO, 1994.
- 12) «Module training for midwives». WHO, 1996.
- 13) «Monitoring reproductive health, selecting a short list of national and global indicators».WHO, 1997.
- 14) Quality Development in perinatal care –The Obsquid Project WHO/EURO/EUR/ICP/QCPH/030203.
- 15) «Selecting of reproductive health indicators». WHO, 1998 г.

**Availability of medical equipment and supplies in health houses in the
Republic of Tajikistan by regions (in % of requirements)**

Equipment type		Khatlon	Sogd	RRS	GBAO	Republic
1	Medical scales	59.4	32.3	30.3	58.1	45.8
2	Pelvometer	59.4	59.9	51.4	58.1	57.3
3	Stetoscope	64.9	44.9	51.4	67.6	57.3
4	gynaecological mirrors	92.7	44.9	38.6	58.1	65.0
5	measuring tape	80.4	59.9	27.8	58.1	60.2
6	blood pressure meter	77.6	62.9	51.4	71.6	67.1
7	midwifery stetoscope	77.6	62.9	51.4	71.6	67.1
8	gloves	15.5	24.0	20.6	18.9	19.0
9	spatulas	49.5	35.9	30.3	71.6	43.7
10	one-time syringes	15.5	18.0	15.4	18.9	16.3
11	tweezers	49.5	53.9	25.7	58.1	45.2
12	Folkman spoons	35.5	53.9	17.0	54.1	36.6
13	Glasses for microscope slides	30.9	26.0	8.5	44.6	25.4
14	Diapers	15.6	37.1	8.5	23.0	19.2
15	drying cupboard	3.6	3.0	6.2	14.9	5.2
16	gyneacological chair	11.1	18.9	8.7	14.9	12.6
17	growth monitor	16.4	18.9	17.0	58.1	21.1
18	sterilizer	49.5	36.2	26.2	62.2	41.8
19	sterilizer boxes	49.5	36.2	51.7	62.2	48.4
20	scissors	46.7	36.2	51.4	58.1	46.7
21	delivery kits	34.0	16.8	17.0	29.7	25.4
22	hemometer	9.3	18.0	15.4	23.0	14.1

**Availability of medical equipment and supplies in rural outpatients hospitals and in rural hospitals
in the Republic of Tajikistan by regions (in % of requirements)**

Equipment type	RRS	Sogd	Khatlon	GBAO	Republic
1. medical scales	52.9	43.6	40.3	53.2	47.5
2. pelvometer	75.4	88.8	48.0	68.1	70.0
3. stetoscope	74.9	87.8	50.3	70.2	70.0
4. gynaecological mirrors	74.9	82.0		91.5	62.1
5. measuring tape	68.4	98.9	49.0	72.3	72.2
6. blood pressure meter	65.2	63.8	58.1	72.3	64.9
7. midwifery stetoscope	65.2	71.3	55.4	76.6	67.1
8. gloves	22.4	13.5	12.4	22.4	17.6
9. spatula	54.4	63.4	44.4	64.2	56.5
10. one-time syringes	12.4	22.4	15.6	22.4	18.2
11. tweezers	54.4	63.4	52.4	68.4	59.7
12. Folkman spoons	36.9	68.6	14.4	8.5	32.1
13. glasses for microscope slides	24.9	26.8	22.4	32.2	26.6
14. diapers	78.6	57.4	34.2	63.8	58.5
15. drying cupboard	10.2	20.7	6.0	2.1	9.8
16. gynaecological chair	70.1	93.1	44.3	44.7	63.1
17. growth monitor	61.0	48.4	38.9	63.8	53.0
18. sterilizer	54.4	52.4	52.8	62.8	55.6
19. sterilizer boxes	64.5	48.4	62.8	66.6	60.6
20. scissors	73.3	38.2	58.7	78.7	62.2
21. delivery kits	18.2	59.0	21.8	23.4	30.6
22. hemometer	37.4	39.4	8.7	53.2	34.7
23. baby beds, beds, refrigerator	85.1	96.4	78.8	92.8	88.3

**Availability of medical equipment and supplies in Women's consultation centers
in the Republic of Tajikistan by regions (in % of requirements)**

Equipment type	Dushanbe	Khatlon	Sogd	RRS	GBAO	Republic
1 medical scales	100.0	72.0	73.7	72.7	85.7	78.4
2 pelvometer	100.0	100.0	94.7	100.0	100.0	98.6
3 stethoscope	100.0	100.0	100.0	100.0	100.0	100.0
4 gynecological mirrors	100.0	100.0	100.0	100.0	100.0	100.0
5 blood pressure meter	100.0	100.0	84.2	81.8	100.0	93.2
6 midwifery stethoscope	100.0	100.0	84.2	81.8	100.0	93.2
7 gloves	58.3	64.0	52.6	54.5	42.9	56.7
8 Biopsy kit for neck of uterus	100.0	48.0	26.3	18.2	42.9	45.9
9 Spatulas	100.0	80.0	26.3	100.0	100.0	74.3
10 one-time syringes	66.7	48.0	15.8	27.3	42.9	39.2
11 tweezers	100.0	84.0	100.0	72.7	100.0	90.5
12 Folkman spoons	100.0	64.0	84.2	72.7	85.7	78.4
13 Glasses for microscope slides	100.0	96.0	84.2	72.7	85.7	89.2
14 Diapers	66.7	16.0	52.6	36.4	57.1	40.5
15 drying cupboard	58.3	16.0	42.1	36.4	42.9	35.1
16 gynecological chair	100.0	100.0	100.0	100.0	100.0	100.0
17 growth monitor	100.0	80.0	94.7	100.0	100.0	91.9
18 baby-beds, beds, refrigerator	100.0	80.0	94.7	90.9	100.0	90.5
19 sterilizing boxes	100.0	100.0	100.0	90.9	100.0	98.6
20 scissors	100.0	96.0	94.7	90.9	100.0	95.9
21 delivery kits	100.0	72.0	31.6	54.5	57.1	62.2
22 hemometer	91.7	24.0	42.1	54.5	42.9	45.9
23 microscopes, reagents, centrifuge	25.0	0.0	15.8	18.2	14.3	12.2

**Availability of medical equipment and supplies in reproductive health centers
in the Republic of Tajikistan by regions (in % of requirements)**

Equipment type	Dushanbe	Khatlon	Sogd	RRS	GBAO	Republic
1 Medical scales		20.0		23.3		13.8
2 Pelvometer	100	100	66.7	100		87.9
3 Stethoscope	100	100	77.8	84.6	100	89.7
4 gynecological mirrors	100	100	100	100.0	100	100.0
5 blood pressure meter	100	100	88.8	38.4	100	82.7
6 midwifery stethoscope	100	100	72.2	38.4	100	77.6
7 gloves		36	27.8	38.4		32.8
8 Biopsy kit for neck of uterus		20	5.6	15.3		13.8
9 Spatulas	100	68	66.7	38.4	100	62.1
10 one-time syringes		28	22.2	61.5	100	34.5
11 tweezers	100	100	66.7	76.9	100	84.5
12 Folkman spoons	100	100	22.2	23.0	100	58.6
13 glasses for microscope slides	100	76	66.7	23.0	100	62.1
14 diapers	100	68	27.8	38.4		48.3
15 drying cupboard	100	48	33.3	53.8	100	46.5
16 gynecological chair	100	100	100	84.6	100	96.5
17 growth monitor	100	64	83.3	53.8	100	68.9
18 baby-beds, beds, refrigerator	100	100	100	100.0	100	100.0
19 sterilization boxes	100	100	83.3	84.6		89.6
20 scissors	100	100	72.2	61.5	100	82.7
21 delivery kits		80	55.6	53.8	100	65.5
22 hemometer	100	80	55.6	61.5	100	69.0
23 microscope, reagents, centrifuge		40	5.6	7.7	100	22.4
24 IUD insertion and removal sets	100	100	100	100.0	100	100.0
25 Vacuum aspiration set	100	100	50.0	53.8	100	74.1
26 Anatomical teaching models of women's reproductive organs	100	8.0	5.6	15.3	100	12.1

**Availability of medical equipment and supplies
in delivery departments and maternity houses
in the Republic of Tajikistan by regions (in % of requirements)**

Equipment type	Dushanbe	Khatlon	Sogd	RRS	GBAO	Republic
1 Stethoscope for foetal heartbeat	100	100.0	100.0	100.0	100.0	100.0
2 Sterilizer for instruments	100	100.0	100.0	100.0	100.0	100.0
3 Delivery forceps	100	84.6	100.0	100.0	100.0	94.4
4 Лотки	100	76.9	100.0	100.0	100.0	91.5
5 Thermometers	100	50.0	52.6	42.9	50.0	52.1
6 Brushes for surgical handwashing	100	38.5	52.6	42.9	50.0	47.9
7 Bladder catheters	100	38.5	84.2	71.4	75.0	64.8
8 Obstetric and gynaecological spatula	100	100.0	100.0	100.0	100.0	100.0
9 Delivery kits	100	76.9	100.0	100.0	100.0	91.5
10 Suturing kits	100	42.3	84.2	57.1	100.0	66.2
11 Kit for removal of foetal pieces	100	42.3	52.6	21.4	100.0	50.7
12 Laparotomy kit	100	76.9	52.6	42.9	75.0	64.8
13 Surgical suturing kit - cervix	100	42.3	31.6	42.9	50.0	43.7
14 Functional delivery beds	100	69.2	84.2	100.0	100.0	84.5
15 Foetal monitor (fetalgar 2000)	50	0.0	0.0	0.0	0.0	2.8
16 Electrical aspiration kit	100	38.5	52.6	42.9	100.0	53.5
17 Apparatus for artificial ventilation	100	50.0	47.4	42.9	37.5	49.3
18 Anaesthetic equipment	100	69.2	47.4	42.9	50.0	57.8
19 Reanimation table for newborns	100	53.8	68.4	100.0	100.0	74.6
20 Closed reanimation table	100	76.9	68.4	100.0	100.0	83.1
21 Kits for newborn reanimation (aspirator)	100	61.5	78.9	71.4	50.0	69.0
22 Reanimation beds	100	65.4	84.2	71.4	37.5	70.4
23 Disposable syringes	100	30.8	42.1	57.1	37.5	43.7
24 Disposable system for blood exchange	100	23.1	42.1	42.9	37.5	38.0
25 Newborn scales	100	100.0	100.0	100.0	100.0	100.0
26 Hemometer	100	30.8	42.1	42.9	37.5	40.9
27 newborn examination bed	100	100.0	100.0	100.0	100.0	100.0
28 warming sheets for pre-term babies	100	19.2	42.1	21.4	37.5	32.4
29 disposable syringes for newborns	100	19.2	42.1	28.6	37.5	33.8
30 perfusor	100	19.2	31.6	7.1	12.5	23.9
31 kit for placenta removal		38.5	52.6	21.4	37.5	36.6
32 IUD insertion and removal kit	100	61.5	31.6	42.9	37.5	49.3
33 Gynecological chair	100	100.0	100.0	100.0	100.0	100.0
34 Incubator for newborns	100	15.4	10.5	14.3	12.5	18.3
35 Transport and stationary incubators		0.0	0.0	0.0	0.0	0.0
36 Warming beds for newborns	100	30.8	42.1	21.4	37.5	36.6
37 Oxygen apparatus for children	50	3.8	10.5	7.1	12.5	9.8
38 Reanimation table	100	80.8	84.2	71.4	100.0	83.1
39 Rachman beds	100	100.0	100.0	100.0	100.0	100.0

**Supply of medical drugs in reproductive health services
in the Republic (in % of requirements)**

	Health house	Women's consultation	SVA and SUB	Maternity home	RHC
Antibiotics	18.9	2.7	35.5	38.0	–
Uterotomic drugs	12.5	5.4	39.0	43.7	7,7
Sedatives	9.4	8.1	16.9	25.4	–
Antihistamines	8.6	14.9	18.5	31.0	–
Anti-hypotensive drugs	7.8	16.2	8.1	26.8	–
Infusion drugs	–	6.8	1.0	32.4	–
Heart glycosides	5.3	14.9	5.0	–	–
Blood groups test kit	–	1.4	–	32.4	–
Blood for transfusion	–	–	–	9.9	–

**Supply of medical drugs in reproductive health services
in the city of Dushanbe (in % of requirements)**

	Women's consultation	Maternity home	RHC
Antibiotics		75.0	
Uterotomic drugs		100.0	100.0
Sedatives		50.0	
Antihistamines	8.3	25.0	
Anti-hypotensive drugs	16.7	50.0	
Infusion drugs		50.0	
Heart glycosides	33.3		
Blood groups test kit		100.0	
Blood for transfusion		75.0	

**Supply of medical drugs in reproductive health services
in the Khatlon oblast (in % of requirements)**

	Health house	Women's consultation	SVA and SUB	Maternity home	RHC
Antibiotics	5.4	4.0	21.8	30.8	
Uterotomic drugs	2.8	8.0	25.2	26.9	4.0
Sedatives	0.9	4.0	9.1	15.4	
Antihistamines	2.6	8.0	10.1	26.9	
Anti-hypotensive drugs	7.4	12.0	12.8	19.2	
Infusion drugs		8.0		15.4	
Heart glycosides	7.4	4.0	9.4		
Blood groups test kit		4.0		15.4	
Blood for transfusion					

**Supply of medical drugs in reproductive health services
in the Sogd oblast (in % of requirements)**

	Health house	Women's consultation	SVA and SUB	Maternity home	RHC
Antibiotics	43.4	5.3	27.7	42.1	
Uterotomic drugs	34.1	5.3	56.4	57.9	5.6
Sedatives	32.6	26.3	36.7	42.1	
Antihistamines	21.9	42.1	41.0	36.8	
Anti-hypotensive drugs	15.6	31.6	39.9	42.1	
Infusion drugs		15.8		42.1	
Heart glycosides	9.9	26.3	3.7		
Blood groups test kit				42.1	
Blood for transfusion				15.8	

**Supply of medical drugs in reproductive health services
in GBAO (in % of requirements)**

	Health house	Women's consultation	SVA and SUB	Maternity home	RHC
Antibiotics	25.7		21.2	37.5	
Uterotomic drugs	35.1	14.3	21.3	50.0	100.0
Sedatives	18.2		12.8	25.0	
Antihistamines	14.2		29.8	50.0	
Anti-hypotensive drugs	12.2			25.0	
Infusion drugs				50.0	
Heart glycosides			17.0		
Blood groups test kit				37.5	
Blood for transfusion				12.5	

**Supply of medical drugs in reproductive health services
in Regions of Republican Subordination (in % of requirements)**

	Health house	Women's consultation	SVA and SUB	Maternity home	RHC
Antibiotics	17.7		74.3	35.7	
Uterotomic drugs	1.5		48.1	35.7	7.7
Sedatives			10.7	14.3	
Antihistamines	4.9		7.5	21.4	
Anti-hypotensive drugs		9.1	10.7	28.6	
Infusion drugs				35.7	
Heart glycosides					
Blood groups test kit				28.6	
Blood for transfusion					

Primary Medical Documentation in Reproductive Health Services in the Regions of the Republic of Tajikistan (in % of the requirements)

Type of medical documentation	Dushanbe	RRS	Sogd	Khatlon	GBAO	Republic
SVA und SUB						
1. Medical outpatient record 025/Y	-	16,5	27,1	13,1	7,2	16,5
2. Patient record for ill patients 030/Y	-	13,1	25,3	7,2	7,2	12,8
3. Registration record for outpatients 074/y	-	18,1	28,4	16,8	8,2	18,8
4. Individual patient card for contraceptives 025K	-	14,2	26,4	10,5	3,9	14,4
5. List of women with severe extra-genital pathology	-	17,5	28,6	11,9	4,8	16,4
6. Journal of obstetric notes for the institution 032/y	-	17,0	24,9	14,2	8,7	16,7
7. Form on pregnant women under supervision SVA 075/y	-	16,0	24,0	12,9	5,3	15,4
8. Individual cards of pregnant women and women in labor 111/y	-	17,5	28,9	17,3	5,3	18,7
9. Exchange card for pregnant women	-	10,8	22,3	8,3	2,9	11,6
Women's Consultation						
1. Medical outpatient record 025/y	66,6	40,0	31,6	42,3	37,5	34,3
2. Patient record for ill patients 030/y	66,6	13,3	36,8	30,8	37,5	25,4
3. Registration record for outpatients 074/y	75,0	33,3	42,1	53,8	37,5	40,3
4. Individual patient card for contraceptives 025K	14,3	40,0	47,4	57,7	62,5	46,3
5. List of families	75,0	46,7	36,8	50,0	75,0	40,3
6. Record of visits to polyclinic, dispensary facility and outpatient centre, and home care 039/y	66,6	46,7	26,3	30,8	37,5	29,9
7. Genetic history card	25,0	-	-	7,7	12,5	3,0
8. Form on pregnant women under supervision 075Y	75,0	6,7	21,1	42,3	62,5	23,9
9. List of visits	75,0	40,0	63,2	76,9	75,0	56,7
10. Pregnancy termination card, form-111Y	75,0	26,7	42,1	42,3	62,5	34,3
11. Contraceptive resources register	14,3	60,0	73,7	73,1	75,0	64,2
12. List of registered equipment	75,0	33,3	63,2	61,5	75,0	49,3
13. Regulatory documents file	14,3	53,3	73,7	57,7	75,0	56,7
14. List of seminar-based activities with midwives	14,3	40,0	78,9	76,9	62,5	62,7
15. Press clippings file	14,3	20,0	78,9	73,1	62,5	56,7
16. Registration journal of consultations	14,3	46,7	73,7	76,9	75,0	62,7
17. Reports file	14,3	53,3	78,9	69,2	75,0	62,7

Health house						
1. Registration record for outpatients 074/y	-	35,0	47,4	35,7	21,7	37,0
2. Medical outpatient record 025/y	-	31,0	37,2	23,7	18,4	28,3
3. Registration journal for women using contraceptives	-	19,1	32,6	14,0	12,6	19,6
4. registration of contraceptive coverage of women in target groups	-	15,8	32,4	11,0	13,0	17,5
5. Individual cards of pregnant women and women in labour 111/y	-	30,6	41,0	27,6	14,0	30,3
6. Individual patient card for contraceptives 025/K	-	17,5	26,6	8,4	13,0	15,4
7. Form on pregnant women under supervision of the health house 075/y	-	21,2	36,6	19,7	13,0	23,4

