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**ACRONYMS AND ABBREVIATIONS**

|      |  |        |  |
|------|--|--------|--|
| AIDS | Acquired Immuno-Deficiency Syndrome                                    | MMR    | Maternal Mortality Ratio (per 100,000 live births) |
| CAR  | Central Asia Region  | MSF    | Médecins sans Frontières                           |
| CIS  | Commonwealth of Independent States                                     | NGO    | Nongovernmental Organization                       |
| CSW  | Commercial Sex Worker  | PHC    | Primary Health Care                                |
| DOTS | Directly Observable Treatment, Short Course Therapy (for Tuberculosis) | PRSP   | Poverty Reduction Strategy Program                 |
| ECA  | Europe and Central Asia  | PPP    | Purchasing Power Parity                            |
| ECHO | European Commission Humanitarian Office                                | PRSP   | Poverty Reduction Strategy Paper                   |
| EPI  | Expanded Programme on Immunization                                     | RRS    | Rayons of Republican Subordination                 |
| EU   | European Union   | STI    | Sexually Transmitted Infection                     |
| FAP  | Feldsher and Midwife/ Maternity Point                                  | SUB    | Rural Hospitals                                    |
| GBAO | Gorno-Badakhshan Autonomous Oblast                                     | SVA    | Rural Physician Ambulatory Centers                 |
| GDP  | Gross Domestic Product   | SDR    | Standardized Death Rates (Age Adjusted)            |
| HMIS | Health Management Information System                                   | SES    | Sanitary Epidemiological Services                  |
| HIV  | Human Immunodeficiency Virus   | TB     | Tuberculosis                                       |
| IDU  | Intravenous Drug User  | TFR    | Total Fertility Rate                               |
| IMCI | Integrated Management of Child Illness                                 | TLSS   | Tajikistan Living Standards Survey                 |
| IMR  | Infant Mortality Rate (per one thousand live births)                   | UNDP   | United Nations Development Programme               |
| MDG  | Millennium Development Goal  | UNFPA  | United Nations Population Fund                     |
| MICS | Multiple Indicator Cluster Survey                                      | UNICEF | United Nations Children's Fund                     |
| MOF  | Ministry of Finance  | USAID  | United States Agency for International Development |
| MOH  | Ministry of Health   | WHO    | World Health Organization                          |

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## **PREFACE**

This study is presented in two parts. The first part provides an overview of the trends in the health sector, an analysis of the Government's proposed health reform policies and programs, and a synthesis of the findings and recommendations for the medium-term strategy for achieving the Government's objectives outlined in the Tajikistan Poverty Reduction Strategy. The second part consists of a series of detailed studies that address the key issues: (i) Health Care Finance; (ii) Nutrition; (iii) Community Health and Public Health; and (iv) Community Health Surveys. Readers interested in more detailed analysis of these topics are referred to Volume II of the study.

The main findings and recommendations described in this report were discussed and refined during a series of workshops conducted in Dushanbe in February 2004, and formally presented at the National Conference on Health Reform in the Context of the Poverty Reduction Strategy which was held in Dushanbe on April 13-14, 2004.

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## EXECUTIVE SUMMARY

**1. Impact of a Decade of War and Economic Collapse on Poverty and Health**

1. In the decade following the dissolution of the Soviet system, Tajikistan has suffered one of the severest economic declines among the former Soviet Republics, exacerbated by years of civil war (1993-1997). These shocks to the system have left Tajikistan one of the poorest countries in the world<sup>1</sup>, and its social infrastructure, including the health system, in a near-state of collapse. The breakdown in the basic infrastructure and health services has led to a resurgence in communicable diseases that had been kept under control in the Soviet era: malaria has returned to become endemic in regions bordering Afghanistan, and there are now periodic outbreaks of typhoid fever and measles that attest to the inadequacies of both the water supply system and the public health programs. Nearly one third of the children in Tajikistan suffer from chronic malnutrition, indicative of the precarious household food security conditions as well as inappropriate feeding practices. As a consequence, the people of Tajikistan now suffer one of the poorest health outcomes among the Commonwealth of Independent States, and their epidemiological profile resembles those of the lowest income countries in the world.

2. **With the return to peace and political stability in recent years, Tajikistan may at last be on a road to economic recovery and able to begin focusing on rebuilding its health systems.** There are signs that economic growth is having some positive impact on the life of its people: it is estimated that between 1999 and 2003 the proportion of Tajikistan's population living below the poverty line<sup>2</sup> fell from 81 percent to 64 percent. These trends are corroborated by recent national nutrition surveys, which show a reduction in both acute and chronic child malnutrition rates.<sup>3</sup> Community and household surveys conducted in 1999 and 2003 also suggest some improvements in the quality of health care and access to drugs over this period.<sup>4</sup>

3. **But these modest gains are marginal when measured against the magnitude of the health problems facing the country.** Although Tajikistan may no longer be facing a humanitarian crisis, the health status of the people of Tajikistan remains very precarious. It should be noted that Tajikistan's official statistics may be substantially under-reporting the severity of the health problems in the country. Official statistics report the country's Infant Mortality Rate (IMR) at just 28 per 1,000 live births, comparable to the rates found in middle income countries such as Bulgaria and Mexico. The results of recent surveys<sup>5</sup> suggest that IMR in Tajikistan in the late 1990s probably ranges between 78 to 87 per 1,000 live births – comparable to the rates found in low income countries such as Haiti and Gabon. Such discrepancies in the key health indicators could lead to a significant underestimation of the resources needed to address the problem, including the flow of international assistance that is based on the country's capacity for achieving the Millennium Development Goals (MDGs).<sup>6</sup>

4. **The high level of narcotic drug trafficking and the continuing labor migration are creating conditions that could lead to a rapid spread of HIV/AIDS and associated diseases.** If left unchecked, these conditions could lead to a devastating and costly public health crisis that will weaken the country's ability to attain its goals of poverty reduction and sustainable growth. Yet another worrisome trend is the declining age of first pregnancy and age of marriage of women, and the associated declining enrollment

<sup>1</sup> In 2003, Tajikistan's Gross Domestic Product (GDP) was estimated to be around \$200 per capita.

<sup>2</sup> Poverty line is defined here as living below PPP\$2 per day. Data from Tajikistan Poverty Assessment Update, 2004.

<sup>3</sup> National Nutrition Surveys, 2001 and 2002.

<sup>4</sup> Based on comparisons of the TLSS 1999 and TLSS 2003 data.

<sup>5</sup> IMR for 1997-2001 estimated at 86.9 per 1,000 live by Demographic Survey (2002), and for 1994-1998 estimated at 78 per 1,000 live births according to Tajikistan Living Standards Survey (1999).

<sup>6</sup> MDGs are internationally agreed targets to reduce poverty and improve services for the poor by 2015.

rate of girls in schools. These tendencies suggest deteriorating social conditions for women that might portend a further decline in the health status of women, and consequently the health of their children.

5. **In 2003 Tajikistan spent just under \$12 per capita on health care, which places Tajikistan among the lowest spenders on health care in the world.** At this level of spending, the country has barely enough resources to cover the recurrent costs of the most basic health services.<sup>7</sup> The public budget contributed just US\$2 per capita, or 16 percent of the total, whereas household out-of-pocket spending accounted for most (70 percent) of the health spending and external assistance another 13 percent. The Government budget for the health sector had declined steadily over the last decade, and represented less than one percent of GDP in 2003. It is troubling that revenue growth in recent years has not been translated into commensurate increases in the health budget. This has restricted the Government's role in redistributing resources to cover the needs of the socially vulnerable groups, and in pooling resources to provide risk protection for the population in general. Instead, the burden of financing health services has been shifted onto private households, which has left most families without any form of financial protection in the event of a catastrophic illness or injury, and the poor without any form of social protection. External assistance has provided some critically needed medical relief, but it has tended to focus on emergency needs to address the humanitarian crisis.

6. **The impact of the resource constraint is evident in the very low utilization and access to health services.** It is estimated that in 2003 around half of those who reported acute illnesses did not use health services, for a variety of reasons related to both inadequate supply and low demand for health care. Not surprising, the poorest households were much less likely than the high income groups to use health services in case of need. A comparison of 1999 and 2003 household survey data showed that while overall access has improved over this period, income disparity in access is widening, indicating that the benefits of economic recovery are not being distributed equitably and a system of social protection is not in place. With public financing for health care at a barest minimum, most health care providers charge fees, formally and informally, to cover their costs. As a result financial barriers are cited most often as a reason for not accessing health services. Physical barriers are most acute in the remote mountainous regions, where road conditions are poor, means of transport limited, and many communities are totally cut off for months during winter season. Geographic variations in the availability of health services also appear to be a result of unequal distribution of government financing. The regions that received the lowest per capita allocation of public budget (Khatlon Oblast in the south and most of the Rayons of Republican Subordination in central Tajikistan) face a more pronounced shortage of health workers and health facilities. These disparities reveal the ineffectiveness of the input-based budget allocation process inherited from the Soviet system which perpetuates the historical imbalances in the health system.

7. **Financial and physical barriers to care are exacerbated by a lack of knowledge and information about the appropriate and effective use of health services.** It is known that many patients choose to self-medicate rather than seek consultation to avoid the additional costs. This practice often leads to inappropriate use of pharmaceuticals giving rise to drug resistance and other adverse health effects. Many citizens also defer a visit to health services and only contact the health care provider when they are in advanced stages of the disease, which raises the cost and complexity of the intervention and reduces the likelihood of successful treatment. From this perspective, opportunities exist for reducing waste and promoting more effective use of health services through education and participation of patients in maintaining their own health.

8. **Tajikistan inherited a Soviet health care system, a highly specialized, segmented and hierarchical system that does not fit the modern concept of a cost-effective and patient-centered health care.** Years of neglect and under-financing have left much of the existing health infrastructure in a state of disrepair, and large numbers of qualified health workers have been lost to migration.

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<sup>7</sup> The Commission on Macroeconomics and Health (2001) estimates that a minimal health service package addressing the most common communicable diseases would cost around US\$34 in the least developed countries.



Experiences from other countries in the region suggest that consolidation of the Soviet specialty hospitals and dispensaries, including mergers across the different administrative levels, and shifting a greater share of patient care to the primary care level would significantly improve the quality and efficiency of health services. The public health functions of the state will also need to move beyond the Soviet system of sanitary epidemiological services (SES), which focuses on health protection functions through quality control, inspectorate and disease outbreak management. The public health functions of the state will need to be enhanced to encompass prevention and health promotion programs, and inter-sectoral interventions that go beyond the traditional clinical and SES-based services.

9. **In the absence of government support for basic health services, many communities around Tajikistan are beginning to take action to address these problems on their own, and the number of community-based activities has been increasing over the past decade.** While these efforts remain fragile and limited in scope, they represent a valuable resource for the country. In the medium term, it is likely that the government capacity to expand its social services will remain limited, and communities will need to be self-reliant in meeting most of its needs. There are many actions that could be taken at the community and household levels, with limited government and donor assistance, to enhance the health status of the population. They include, for example, dissemination of knowledge about appropriate child care and feeding practices, improving community hygiene, and patient management of chronic conditions such as diabetes.

10. **Strong community involvement in their own health care and the development of their local health system are also essential for extending effective coverage to the poor and vulnerable groups.** In contrast to most low income countries, Tajikistan still enjoys a relatively high literacy and high education levels among both women and men, despite the recent decline in school enrollment rates. In this regard Tajikistan has significant advantages in implementing health promotion and community participation programs. It is encouraging to note that Gorno-Badakhshan Autonomous Oblast (GBAO), one of the poorest regions in Tajikistan, has one of the lowest prevalence rates of acute child malnutrition and highest awareness levels of HIV/AIDS in comparison to the other, better-off, regions. The relative success of GBAO in these areas could be attributed in part to the high educational levels of its population as well as to active health promotion and community health activities conducted in the region, and could serve as a model for the other regions.

## **2. Government Policies on Health Reform in the Context of Poverty Reduction Strategy**

11. **Health and Poverty Reduction Strategy.** Investing in people's health is an essential component of the country's strategy to reduce poverty and achieve sustainable growth. Poor health outcomes are both a symptom of, and a contributing factor to, the country's widespread poverty. Ill-health lowers the productivity of the working population and reduces the learning capacities of children; catastrophic illnesses and injuries drain families' savings and resources, and entrap them in a cycle of poverty. In the Tajikistan Poverty Reduction Strategy Paper<sup>8</sup> (PRSP), the Government reflects this concern and identifies health as one of the priority sectors for its medium-term strategy. The PRSP also incorporates the Millennium Development Goals into its strategy. The MDGs related to the health sector include the following targets for the years 1990-2015: (i) halve the incidence of hunger and reduce child malnutrition; (ii) reduce under-five mortality rate by two thirds; (iii) reduce maternal mortality ratio by three quarters; and (iv) halt and reverse the spread of HIV/AIDS and reduce the spread of malaria, TB and other major infectious diseases. In conjunction with the PRSP, the Government has developed a concept paper on health reform<sup>9</sup> which lays out a comprehensive national strategy for achieving the health objectives of PRSP.

<sup>8</sup> Tajikistan Poverty Reduction Strategy Paper, June 2002.

<sup>9</sup> Conception on Health Reform for the Republic of Tajikistan, 2002.

12. **Mobilizing External Assistance.** Based on the available information, it would appear unlikely that Tajikistan would achieve all of its MDG health goals within the given time frame. As described above, the country has already suffered serious setbacks during the decade of civil war and social turmoil, and its existing health system remains in a very precarious state. In the medium term, with only modest prospects for economic growth the country will not be able to mobilize sufficient resources on its own to meet the basic health needs of the population. Therefore, external assistance will play a critical role in the achievement of the national health objectives. External assistance will be needed to provide direct support to the provision of essential health services, including the provision of essential drugs and vaccines. In addition, external assistance will be needed to invest in the restructuring and rationalization of the health delivery system, and to build institutional and managerial capacity to modernize and improve the quality and efficiency of the health system in the longer term.

13. **Linking Health Reform to the Public Investment Plan and a Medium Term Budget Framework.** Under the PRSP framework, the Government indicated its commitment to increasing the share of budget allocated to health to support the reform agenda described in the Health Reform Concept Paper. But these broad policies and strategies have yet to be translated into specific investment plans and medium-term budget requirements. The Public Investment Plan remains fragmented and does not fully reflect the priorities identified in the Health Reform Strategy. The investment plan should also be developed in close coordination with the relevant recurrent budget requirements, to be reflected in the Medium Term Budget Framework, for staffing, operating expenses, pharmaceuticals and other critical inputs for providing essential health services.

14. **Redefining the Role of the State.** Under the Soviet regime, citizens were guaranteed access to comprehensive health care services provided free-of-charge by the State, but with the collapse of public revenues, the state has been unable to fulfill this role. A Constitutional amendment which would enable the Government to introduce co-payments in the delivery of government health services was approved in a national referendum in 2003. This event represents an important break with the past, and demonstrates the degree to which the Government is committed to the implementation of reforms in the health sector. The amendment enables the Government to prioritize the allocation of health resources according to the Program of State Guarantees for essential health services, and to introduce co-payments for other services. This step also fundamentally changes the relationship between the state and its citizens: by acknowledging shared responsibilities, it acknowledges the roles and responsibilities of the citizens as equal partners in the development of the health system.

### **3. Policy Recommendations**

15. The Government policies reflected in the Poverty Reduction Strategy Paper and the Health Reform Concept documents provide a framework for reform. The following recommendations focus on four key aspects of the health reform program: (i) health financing reform; (ii) restructuring of the health delivery system; (iii) integration of public health, personal health and community health services; and (iv) strengthening information systems for monitoring and evaluating the impact of the reform policies and programs.

16. These reform initiatives form the core activities addressed at the National Conference for Health Reform in the Context of the Tajikistan Poverty Reduction Strategy held on April 13-14, 2004 in Dushanbe. It is clear that many of the proposed reform measures would require a medium- to long-term time frame for implementation. But in the short-term, while establishing the foundation and developing plans for the longer-term institutional changes and human resource capacity building, the country faces many urgent public health needs that cannot wait. Therefore, two sets of recommendations are presented: first, to describe a short-term strategy to meet Tajikistan's more immediate needs in the next few years, and second, a medium- to long-term strategy directed at the systemic reforms needed to develop a more

effective, equitable and sustainable health system for Tajikistan. The short-term and medium term actions to support the health reform program are summarized in Tables 25 and 26.

**A. Short-Term Strategy (3 year time frame)**

17. It is evident that in the short-term the Government of Tajikistan will not be able to mobilize sufficient resources on its own to finance the basic health services to address the urgent public health needs of the population. Under the Program of State Guaranteed Package, the Government proposes to finance from the state budget, within the limits of affordability, the priority health interventions consistent with the Poverty Reduction Strategy; the scope of the package would depend on the level of donor contribution which could be mobilized to provide complementary financing for the essential health package. In the short-term the package would necessarily be minimal in scope, and would focus on the priorities identified in the Poverty Reduction Strategy, including basic maternal and child health services and prevention and control of TB, HIV/AIDS and malaria. The short-term approach would essentially build upon the existing arrangements with the donor agencies which have been providing direct support for drugs, medical supplies and services primarily in the context of a humanitarian assistance, but would begin to integrate these programs into the national health system rather than deliver them through separate and parallel delivery structure. Moreover, the short-term approach both builds on existing and on-going activities to improve health delivery system quality and efficiency – to strengthen public health and community health and to improve monitoring and evaluation – and establishes the foundations for medium- and long- term development in these critical areas. The short-term strategy also creates linkages among the actions to contribution to effective use of scarce resources.

18. Specific actions to be taken under the short-term strategy would include the following: (a) for health interventions that are not covered by the state or require co-payments, expand support to community financing as an interim measure to extend social protection for the vulnerable groups, or appropriate exemption schemes as necessary; (b) identify the Essential Drugs Package which would be funded through a well-coordinated donor funding mechanism, and supported by local capacity to procure and distribute drugs; (c) review and update clinical protocols and targeted training of primary care physicians and nurses in the relevant clinical protocols associated with the essential health services, which would eventually develop into a full training program in family medicine; (d) develop a National Public Health Strategy that will complement the State Guaranteed Package, provide linkages with community-based health programs, clarify roles and functions related to public health functions, and focus on health promotion/disease prevention approaches that promote better coordination among the vertical programs, including detailed strategies for upgrading the public health surveillance system and strengthening public health laboratory functions; (e) support the integration of nutrition programs within public health and primary care (e.g., linkages with immunization programs) and (f) significantly increase resources and support allocated for health promotion and community health activities that are designed to empower families and communities to make a more effective use of their limited resources in order to reduce risks and improve their health status. Such community-based actions, which would be based on delineation of priorities at the national, oblast, and rayon levels, could be complemented by selective use of national campaigns (e.g., related to prevention of measles or HIV/AIDS) and would make the most effective use of public and community resources and capacities.

***B. Medium- Long-Term Strategy (5 – 10 year time frame)***

**(i). Health Financing Reforms: Mobilizing and Using Resources More Effectively and Targeting the Vulnerable Groups**

19. The Government will need to focus attention on mobilizing sufficient resources to finance essential health services and making more effective use of these scarce resources. In the medium term, the Government will need to mobilize resources in the following ways: (a) increase the budget allocation for health from both Republican and local sources, with priorities given to supporting salaries and operating costs to finance the Program of State Guaranteed Services; (b) mobilize external assistance to support the essential health services and public health programs, and finance key investments that would improve the efficiency and quality of the health delivery system; (c) revise the input-based budget formation process based on outmoded Soviet norms to a per capita and activity-based allocation formula; (d) convert the out-of-pocket expenditures into formal co-payment schemes to improve accountability and transparency, and enable better targeting of social protection programs; and (e) promote community financing programs, supported by public funding where feasible, to improve risk pooling and accountability at the local level.

20. The Program of State Guaranteed Services will define the priority health interventions that will be funded by the state free of charge or at subsidized rates, and establish explicit rules for co-payment schemes. In the short-term the scope of the Program will necessarily be very limited in scope and will depend on the level of external assistance available to provide complementary financing; as additional resources become available, additional free or subsidized services would be considered for other priority interventions for the population, with priority given to the most vulnerable groups, including widows, orphans, elderly and disabled who have lost their main sources of income and are unable to pay for health care.

21. Pooling of Health Budgets at the Oblast Level. Health care funds in Tajikistan are budgeted in a fragmented way at the oblast, rayon and jomoat levels. The sources of public funds for health care are extremely fragmented down to the jomoat level, and there is a mismatch between budgeting decisions and management decisions. One consequence of the fragmented budgeting is significant inequalities in the resources available by geographic distribution and by levels of health care. This poses a major obstacle to rationalization of services across different administrative units and levels of care, including the proposed redirection of resources to public health and primary health care sector. For these reasons, pooling of health care funds at a level higher than the rayon or jomoat is an important element of the health financing strategy.

22. Improving Provider Incentives. One of the consequences of pooling funds at the oblast level would be to enable the introduction of new provider payment systems and improve incentives for quality and efficiency of services. This reform will likely take time and would be introduced in steps concurrently with management reforms.

**(ii) Restructuring of the Health Delivery System**

23. Expanding the Primary Health Care network. A centerpiece of the Government's health reform program is the expansion of the primary health care system based on the family practice model. The Government aims to shift an increasing share of health care responsibilities to the primary level and away from specialist and hospital services, thereby achieving both cost savings and improved quality and access to health care for the population. The initial steps have been taken with the establishment of the Family Medicine training programs in the major medical education institutions, and the introduction of family medicine practice and reorganization of the primary care facilities in selected pilot rayons. In the next step, the Government will need to develop an implementation plan for rolling out the primary health care reform to the rest of the country, and this should be reflected in the Public Investment Plan and the

Medium Term Budget Framework. The implementation of the primary care reform should also be coordinated with the parallel reorganization of the hospital and specialist services to ensure a continuous and effective system of referrals between the different levels of care.

24. Rationalizing Hospital and Specialist Services. A significant share of the recurrent budget is spent on maintaining the existing inefficient hospital sector. Priority attention should be given to ensuring good access to first referral inpatient and diagnostic services for the priority cases referred from the primary health care services. This would require consolidation of a number of oblast, city and rayon hospitals into a new general secondary hospital network which would be organized at the oblast level, but with strong links to the primary health care network organized at the rayon level. At the tertiary care level, the hospital restructuring plan will likely involve consolidation of a number of highly specialized departments and facilities into a fewer number of specialized facilities. These restructuring plans should be accompanied by changes in the hospital financing system to encourage hospital management to raise the productivity of the facilities. Any new investments in medical technology at the tertiary care level should be subject to rigorous health technology assessment that would take into account safety, affordability and cost-effectiveness of the new investments.

25. Reorganizing and Coordinating Public Health Functions. With the proliferation of new public health centers and programs, there is a need to clarify the roles and functions of the different public health entities, and their relations with respect to the existing health delivery system and the Sanitary Epidemiological Services (SES). There is also a need to strengthen critical public health functions, such as surveillance and health promotion, which are being addressed by multiple entities but without clear definition of responsibilities and adequate support for implementation.

**(iii) Ensuring a more Effective Service Delivery for the Poor through Better Integration of Public Health, Personal Health Care and Community Health Approaches**

26. While the Health Reform Concept Paper exhorts a more integrated approach to addressing the health problems in Tajikistan, the current program of activities continues to reflect a segmented approach to the health system. In particular, there has been a growing number of new public health initiatives aimed at addressing the health MDGs, including HIV/AIDS, TB and malaria programs, which are being implemented as vertical programs and have relatively little coordination with each other. Given the limited capacity to deliver services in terms of human and physical resources, Tajikistan cannot afford to build separate and parallel delivery structures to support these programs. The proliferation of vertical programs is also putting a strain on local health administrators and health care providers, who are burdened with the multiple reporting and administrative requirements generated by each program. Better coordination and integration of these vertical programs, where appropriate, would help to improve the overall efficiency and effectiveness of public health programs. This may involve, for example, sharing of laboratory facilities, coordination of community outreach programs, and integration of health information systems at the facility and local administrative levels. While the government cannot continue to support the extensive ambulatory care facilities such as medical houses throughout Tajikistan, the important function of feldshers – as community health workers – is critical, particularly in isolated rural areas, and will be supported and integrated into the family health teams. Similarly, while it may be appropriate to maintain some vertical programs, linkages among health promotion/disease prevention programs and between public health and primary care is of critical importance in a country with limited resources to support independent, often duplicative programs.

27. In prioritizing the services to be financed by the state under the Program of State Guarantees, the Government should consider a balanced and integrated approach that combines family health, community-based programs, and public health activities that fall outside the traditional boundaries of the

health system.<sup>10</sup> Such an approach would be essential in ensuring the most effective use of the country's limited resources, and especially in addressing the underlying social and behavioral issues associated with many of the priority health problems (such as HIV/AIDS and STIs).

28. The types of actions that can be taken over the medium-term build on actions identified in the National Public Health Strategy that will include: introduction of legislations to rationalize public health roles and responsibilities at the Republican, Oblast, and Rayon levels; updating and rationalization of existing national, oblast level environmental regulations including water and sanitation; strengthen building capacity to enforce regulations on public health and safety, and devising functions and responsibilities for community health workers, with specific protocol and standards of care, and training of nurses and feldshers based on these standards.

**(iv). Improving Transparency and Accountability at all Levels of the Health System by Promoting Participatory Monitoring and Evaluation**

29. Tajikistan suffers from the lack of accurate and consistent information on critical aspects of the health system and health outcomes. Although a number of national surveys are beginning to reveal the magnitude of the health problems in the country, these are costly undertakings and require substantial external assistance on a regular basis to generate the necessary information. The Government should give priority to investments in the health management information systems that would be able to generate timely and accurate data on health systems performance. Furthermore, the participation of the communities as well as the health care providers in the monitoring and evaluation process should be an essential part of the health reform process in order to foster greater accountability and transparency in the system. Medium-term actions recognize the need to strengthen capacity of the public and private sectors with respect to collecting, analyzing, interpreting and using data and information for policy, planning and practice decision-making at the national, oblast, rayon, and facility levels.

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<sup>10</sup> This framework on integrated approach to health services is described in Chapter 4 in The World Development Report, 2004.

## **I. INTRODUCTION**

1. In the last decade following the dissolution of the Soviet system, Tajikistan suffered a severe economic decline and a collapse of the social and economic infrastructure, followed by years of civil war (1993-1997). By 1996, Tajikistan's real Gross Domestic Product (GDP) was estimated to have contracted to just one third of the 1991 level. While the country has begun to see some economic recovery at the end of the 1990s, it remains one of the poorest countries in the world.

2. The Tajikistan Living Standards Survey conducted in 2003 (TLSS 2003) confirms that most of the population, even among those in the relatively higher income brackets, face precarious existence in meeting the basic daily needs of the family. In such constrained circumstances, an occurrence of an illness or injury among any family member places a heavy burden on household resources, even among families in relatively higher income brackets. Reflecting the great risks that ill-health poses on families in Tajikistan, about three quarters of the respondents of the TLSS 2003 survey identified "health" as the issue of greatest concern, compared with 24 percent on "money" and "jobs". Thus, in Tajikistan, protecting the health of families emerges as one of the highest priorities for mitigating the debilitating effects of poverty on the population.

3. The political stability over the last few years may finally elicit modest improvements in the health status of the population: for example, there are indications of a reduction in the chronic malnutrition rates among children (National Nutrition Surveys, 2001-2003) and a modest reduction in infant mortality rates (Demographic Survey, 2002). This is also corroborated by evidence of perceived improvement in health services between 1999 and 2003, as measured in terms of the community's perception of access to drugs and quality of health services (TLSS 2003). While these trends offer signs of hope, they are overshadowed by the enormous challenges facing Tajikistan to reverse the years of economic decline and political turmoil. Addressing the health needs of the population will be one of the fundamental responsibilities of the Government as well as the society as a whole, and essential to securing a sustainable development and better future for the people.

4. This report will provide a synthesis of the recent trends on the health status of the population and the underlying determinants of health, and the performance of the health system in terms of quality and access to health services. This will be followed by a review of the Government policies and programs on health reform in the context of its Poverty Reduction Strategy Program, and will conclude with a set of recommendations on policies and actions for achieving these objectives. The detailed discussions on topics related to Health Financing, Status of Nutrition, and Public Health and Community Health, are contained in the companion volume. Readers who are interested in obtaining more in-depth analysis of these issues are directed to these reports.

## **II. DEMOGRAPHIC AND EPIDEMIOLOGICAL TRENDS**

5. The demographic and epidemiological profile of the Tajik population reflects the widespread poverty in the country, with high mortality and morbidity rates especially among infants and children, high prevalence of chronic malnutrition and communicable diseases, and a relatively high fertility rate. The official statistics would suggest a relatively steady improvement in the demographic and epidemiological indicators of Tajikistan over the past decade, placing the country above the average for the neighboring Commonwealth of Independent States (CIS). For example, official statistics show the average life expectancy of Tajikistan to be over 72 years in 2002, higher than the CIS average of 67 years in the same year. However, these statistics will need to be interpreted with caution and supplemented with independent survey data. As shown in Table 1, there is a significant variation between official statistics and data from other independent sources.

6. The disease surveillance system under the sanitary and epidemiological system (SES) is barely functioning and poorly integrated into the main health information system. The diagnostic skills of many health workers are limited, and case definitions often do not follow international standards. Urgent attention is needed to improve the accuracy and consistency of selected key indicators to ensure resource allocation and policy decisions in the health sector are based on accurate data.

7. According to the official statistics, infant mortality rate (IMR) dropped from 44.5 to 27.9 per 1,000 live births between 1990 and 2001. Results from various household surveys show a significantly higher IMR: for example, the Demographic Survey of 2002 estimated IMR at around 86.9 per 1,000 live births during the period 1997-2001, and TLSS 1999 estimated IMR at around 78 per 1000 live births during the period 1994-1998. These figures suggest that actual IMR is more than twice the official figures, and places Tajikistan with the highest infant mortality rate in the CIS region.

**Table 1: Tajikistan Health Indicators**

| <b>Health Indicator, by source</b>                      | <b>Indicator</b> | <b>Period</b> |
|---|------------------|---------------|
| <b>Infant mortality rate per 1,000 live births</b>      |                  |               |
| Demographic Survey, 2002                                | 94.5             | 1992-1996     |
| Demographic Survey, 2002                                | 86.9             | 1997-2001     |
| Tajikistan Living Standards Survey, 1999                | 78               | 1994-1998     |
| UNICEF Multiple Indicator Cluster Survey 2000           | 89               | 1993          |
| Official Government statistics                          | 27.9             | 2001          |
| <b>Under five mortality rate per 1,000 live births</b>  |                  |               |
| Demographic Survey, 2002                                | 104.4            | 1987-1991     |
| Demographic Survey, 2002                                | 109.5            | 1992-1996     |
| UNICEF Multiple Indicator Cluster Survey 2000           | 126              | 1993          |
| <b>Maternal Mortality Ratio per 100,000 live births</b> |                  |               |
| Official Government statistics                          | 93.6             | 1993          |
| Official Government statistics                          | 50               | 2002          |
| Hill et al, 2001  | 123              | 1996          |
| <b>Total Fertility Rate</b>                             |                  |               |
| Demographic Survey, 2002                                | 5.1              | 1989          |
| Demographic Survey, 2002                                | 3.9              | 2002          |
| Ministry of Health                                      | 3.0              | 2001          |
| <b>Life Expectancy at Birth</b>                         |                  |               |
| Official Government statistics                          | 62               | 1993          |
| Official Government statistics                          | 72               | 2001          |

8. As with infant mortality rates, estimates of maternal mortality in Tajikistan vary widely. According to the official data, the maternal mortality ratio has fallen by half from 93.6 per 100,000 births in 1993 to 50 per 100,000 live births in 2002. It is likely that this figure under-reports the true maternal mortality ratio, due to a large number of home deliveries which results in low rates of birth registration. According to one estimate, MMR in 1995 may have been as high as 123 per 100,000 live births, more than twice the official figure.<sup>11</sup> Quality of prenatal and antenatal care, and services during delivery, as well as transportation barriers are factors related to the high maternal mortality rates. The MOH, in collaboration with WHO and UNICEF, has initiated a number of programs to address the high infant mortality rates, including the Integrated Management of Childhood Diseases, Breast Feeding Support Program, and the WHO Safe Motherhood Strategy.

<sup>11</sup> Hill, K., Abou Zahr, C., and Wardlaw, T. Estimates of Maternal Mortality for 1995. Bulletin of the World Health Organization, vol. 79, no. 3, 182-193, 2001



**Box 1: Reasons for the Under-estimation of Infant Mortality Rates in Tajikistan**

Tajikistan has maintained the former Soviet definition of live birth, which stipulates that pregnancies of less than 28 weeks resulting in the birth of a baby weighing less than 1000 grams or measuring less than 35 centimeters are considered late miscarriages, unless the baby survives for seven days. This excludes a number of births which would have been registered as “live births” under the international (WHO) definition. Tajikistan formally adopted the international definition of live births in 2004, launching a project in Dushanbe and in the Sogt Oblast to implement the internationally accepted definition and to improve birth and death registration.

Several additional factors are likely to contribute to the wide variation between the official statistics and survey results generally and to under-reporting of births and infant mortality specifically. These include for example 1) the large number of home deliveries, 2) the requirement to pay fees for a birth certificate, which contributes to the estimated 75 percent under-registration of births (MICS 2000), and 3) the fact that health care providers are reluctant to report deaths and are likely to under-report for fear of punitive measures taken against poor outcomes.

**(i). Total Fertility Rates**

9. According to the Demographic Survey of 2002, the total fertility rate (TFR) in Tajikistan decreased significantly over the past decade, from 5.1 in 1989 to 3.9 children per woman in 2002. Despite this decline, TFR remains relatively high for the region, at about double the rates found in the EU and the neighboring CIS countries. The State Statistical Committee estimates that the country's population grew at an annual growth rate of 1.7 percent between the 1989 and 2000 Census, and today around 40 percent of the population are under 15 years of age.

10. The Demographic Survey of 2002 reports a slight decline in the average age for first marriages and average age of first birth among women in Tajikistan. In 2002, the average age of first birth fell from 21.8 years among women currently aged 45-49 to 20.4 years among women aged 25-29; the percentage of women married by the age of 18 increased from 26.4 percent among women in the older age cohort (45-49 years) to 31.1 percent among the women in the younger age cohort (20-24 years). These trends are a major cause for concern, since they portend a possible increase in fertility rate in the near future and a potential reversal in the social and economic gains made by women of Tajikistan, for example, in terms of educational achievements. This trend would be consistent with the recent decline in girls' participation in education (Tajikistan Poverty Assessment Update, 2003).

11. In terms of contraceptive prevalence, the 2002 Demographic Survey results show that nearly 90 percent of women of reproductive age were aware of at least one modern contraceptive method regardless of the geographic location or age. However only one in five of all women and one in three currently married women of reproductive age actually uses any method of contraception, and recurring abortion remains one of the common methods of birth control, despite the high risk of complications, disease incidence and maternal mortality from these procedures. About 12.6 percent of women responded having had at least one induced abortion during their lifetime. Another worrying trend is that although the knowledge of contraceptive methods is relatively widespread among women, the knowledge on prevention of sexually transmitted diseases and HIV/AIDS appears to be very limited (see below, HIV/AIDS).

**(ii). Maternal Health**

12. The high rates of maternal mortality throughout much of the developing world are the result of serious neglect of women's reproductive health, particularly for the poorest women, as well as ineffective interventions. Even where fertility rate are low, the timing and spacing of pregnancies, and the extent to which the births are wanted, warrant attention. Better access to family planning can help reduce the

maternal mortality rate by reducing the number of pregnancies. Women need access to a broad range of services. The primary means of preventing maternal deaths is to provide rapid access to emergency obstetrical care, including treatment of hemorrhages, infections, hypertension, and obstructed labor. It is also important to ensure that a midwife, or doctor is present at every delivery. Skilled attendants must also be supported by the right environment. Life-saving interventions, such as antibiotics, surgery, and transportation to medical centers, are unavailable to many women, especially in rural areas. These women may lack the money for health care and transport, or they may simply lack their husbands' permission to seek care.

13. According to a UNICEF study, the high maternal mortality ratio in Tajikistan can be attributed to poor ante-natal care, poor quality of health services during delivery, and difficulty in transportation, particularly in the rural areas. The study also indicated that poor ante-natal and delivery care were related to lack of materials and equipment, and inadequate training of health personnel.<sup>12</sup> During the Soviet period, comprehensive prenatal care was provided and 90 percent of all births were delivered in maternity wards. But by 1999, the number of mothers giving birth in maternity wards or hospitals had decreased to 71 percent. Between 1999 and 2003, there did not appear to be a significant change, with around two thirds of the population giving birth at a maternity ward or hospital in 2003.

14. There was a significant difference, however, in the location of delivery by income levels: in 2003, around 42 percent of mothers in the poorest quintile group used maternity homes compared with 56 percent from the highest quintile group. Since the TLSS questionnaire did not distinguish the type of deliveries carried out at home, it is not possible to tell how many home deliveries were attended by midwives or medical workers. The Poverty Reduction Monitoring Survey of 2002 (PRMS 2002) found that around 47 percent of women delivered at home with medical assistance or midwife, and about 11 percent of the women delivered at home without any medical assistance.

15. There was essentially no change from 1999 to 2003 in the percentage of women reporting having consulted a doctor or other skilled personnel for her last pregnancy. But there is a significant difference between regions on the use of medical consultations during pregnancy. The use of prenatal care was lowest in Khatlon (74 percent) and Rayons of Republican Subordination (RRS - 78 percent), while they were relatively high in Gorno-Badakhshan Autonomous Oblast (GBAO - 95 percent) and Sogd Oblast (96 percent). The differences were less pronounced by different household consumption quintiles, although among the poorest quintile group 78 percent used ante-natal care compared with 89 percent in the highest quintile group.

16. Among the 15 percent of women who did not seek medical consultation during pregnancy in 2003, the most common reasons given were that the health facilities were too far (31 percent), too expensive (28 percent), or they were too "ashamed" to be examined (26 percent). There are some significant regional differences, with women in GBAO indicating distance as the most common reason for not accessing care, whereas in Dushanbe cost was the main reason for not accessing care.

(iii). Rise in Communicable Diseases

17. As a consequence of the deteriorating basic infrastructure and social services (water, sanitation, housing, and medical services), over the last decade Tajikistan has experienced the reemergence of many infectious diseases, such as malaria, which had been eliminated during the Soviet era. As shown in Table 2, the rising incidence of diarrhea and periodic outbreaks of typhoid are indicative of poor quality of the water supply and sanitation system. In the rural areas, inadequate management and control of livestock health is giving rise to an increase in infectious diseases such as Brucellosis and Anthrax. High incidence of hepatitis is indicative of the poor quality of medical services, which might transmit hepatitis through

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<sup>12</sup> Napoletano, A. and Coclite, D. (2003) Using Verbal Autopsy to Assess the Path to Death: Infant and Maternal Mortality in SOGD and RRS Oblasts, Tajikistan. Dushanbe: UNICEF/Tajikistan.

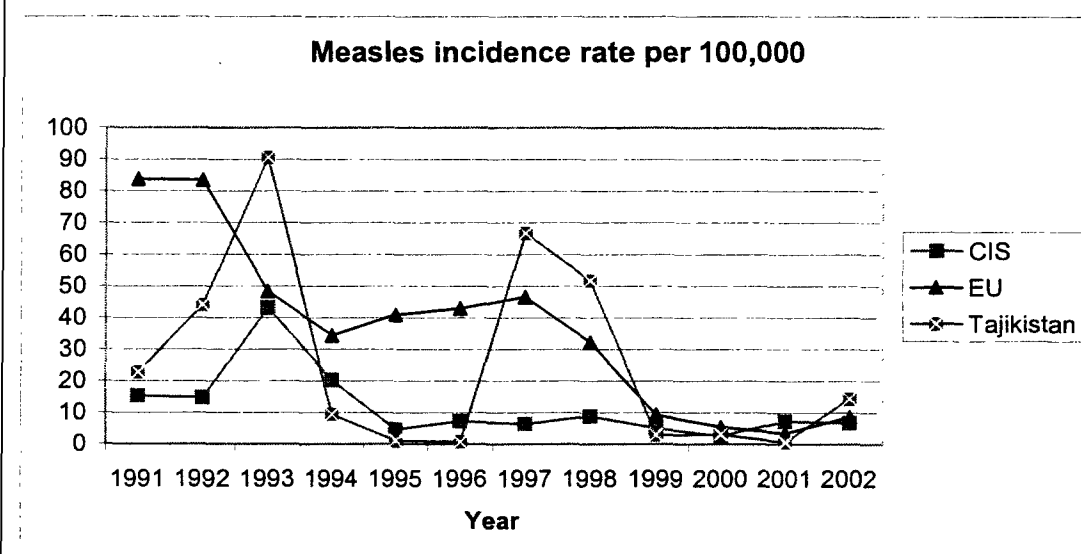
the re-use of syringes, through needle exchange among drug users, and through crowded living conditions.

**Table 2: Incidence of Infectious Diseases in Tajikistan, 1995-2002, per 100,000 Population**

| Infectious Disease | 1995  | 1996  | 1997  | 1998  | 1999   | 2000   | 2001   | 2002   |
|--------------------|-------|-------|-------|-------|--------|--------|--------|--------|
| Diarrhea           | 845.0 | 663.5 | 893.1 | 984.3 | 1198.7 | 1366.2 | 1152.0 | 1045.6 |
| Hepatitis          | 348.6 | 139.1 | 274.1 | 119.8 | 161.2  | 158.1  | 149.0  | 130.3  |
| Typhoid            | 26.6  | 213.2 | 491.1 | 168.6 | 114.4  | 70.8   | 53.6   | 52.2   |
| Dysentery          | 147.6 | 89.6  | 81.0  | 62.1  | 60.9   | 42.4   | 33.3   | 35.4   |
| Brucellosis        | 4.7   | 4.3   | 2.6   | 3.3   | 8.2    | 13.6   | 12.4   | 17.9   |
| Anthrax            | 1.74  | 1.91  | 1.25  | 4.8   | 2.4    | 5.4    | 2.5    | 2.6    |

Source: Government of Tajikistan, Millennium Development Goal Report, 2003.

**Figure 1: Measles Incidence Rate in EU, CIS and Tajikistan, 1991-2001**



Source: Health For All, WHO EURO, 2003 and Ministry of Health.

18. The economic burden of epidemics such as tuberculosis, malaria, and HIV/AIDS on families and communities is enormous. Estimates suggest that tuberculosis costs the average patient three or four months of lost earnings, which can represent up to 30 percent of annual household income; malaria slows economic growth in Africa by about 1.3 percent a year; and when the prevalence of HIV/AIDS reaches 8 percent – about where it is for 13 African countries today – the cost in growth is estimated at about 1 percent a year.

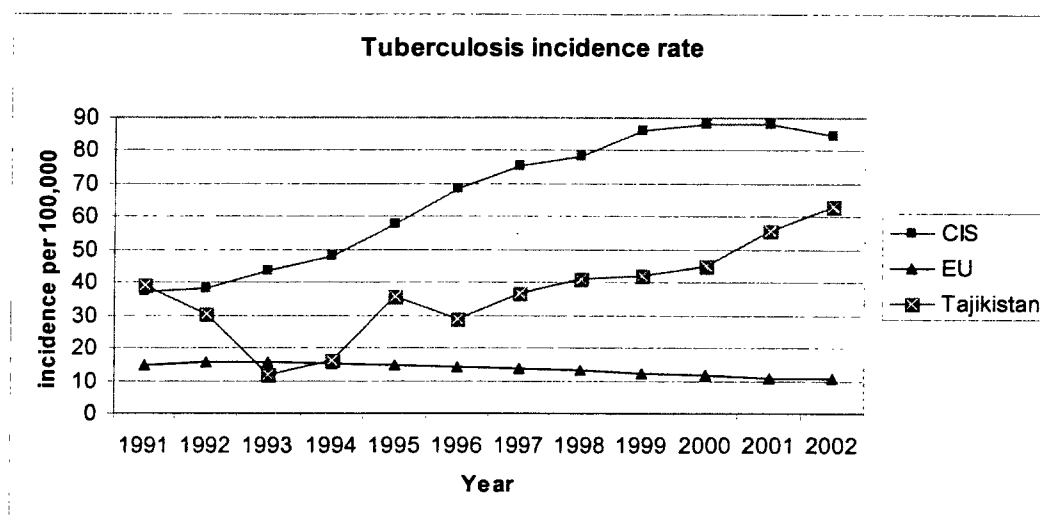
19. The dramatic increase in the incidence of malaria and tuberculosis present serious challenges to the health system. During the Soviet era, endemic malaria had been nearly eradicated from Tajikistan, but malaria returned in epidemic proportion in 1992, and is now known to be endemic in large areas of the country especially in regions bordering Afghanistan. The sudden rise in malaria incidence has been attributed largely to the major movements of the Tajik population in 1992 to the most affected areas in Afghanistan and their return to their permanent places of residence which had no malaria prevalence in the past. At the same time, as the general health care services deteriorated, all malaria prevention measures were suspended, and drainage systems were no longer adequately maintained and cleaned, providing a better breeding ground for malaria-transmitting mosquitoes in ditch-water reservoirs and other stagnant pools.

20. While there have been some improvements in access to quality diagnostic and treatment facilities around the country, it is reported that many patients are self-treating with medicine without medical supervision to avoid informal payments (Millennium Development Goals of Tajikistan, 2002). This represents a major risk to the health system and urgent attention is needed to reduce the inappropriate prescribing and use of pharmaceuticals.

(iv). Tuberculosis

21. Tuberculosis is another major infectious disease that has been increasing rapidly in Tajikistan, with the number of registered cases doubling from 32 per 100,000 in 1996 to 64 per 100,000 in 2002 (Figure 2). The spread of tuberculosis in Tajikistan has been closely linked to widespread poverty and recurring natural disasters. The rapid increase in morbidity rates has been spurred by absence of qualified health personnel and lack of effective pharmaceutical, medical and diagnostic supplies.

**Figure 2: Tuberculosis Incidence Rates in Tajikistan, CIS and European Countries, 1991-2002**



Source: Health For All, WHO EURO, 2003 and Ministry of Health.

22. Tuberculosis is a debilitating disease that contributes to the impoverishment of families by reducing the productivity of the working members, and through the relatively costly and long-term treatment required of the patients. The Soviet practice of treating TB patients in a long-term inpatient facility is neither affordable nor appropriate. Based on a WHO recommendation, the Government has introduced a National Program for Directly Observable Treatment – Short Therapy (DOTS) to address this problem. At this time, the implementation is limited to only a few rayons.

23. Prisoner populations represent a matter of significant concern with respect to TB, as well as the associated HIV/AIDS. An estimated 13,000 Tajiks are incarcerated,<sup>13</sup> and they are likely to be a high risk group for TB and related infections. However, there have been no national studies of TB or HIV/AIDS among prisoners, and there is an urgent need to obtain more accurate information in Tajikistan. Rates of multi-drug resistant TB in Central Asia are believed to be among the highest in the world, and these are associated with the poor health services and high turnover rates among the prisoner population (Godinho et al., 2004). In the Kyrgyz Republic and Russia, approximately 10 percent of the prison population has

<sup>13</sup> Republican Centre for Tuberculosis Control

active TB and some 60 percent of patients with multi-drug resistant TB are prisoners.<sup>14</sup> Although there are no comparable data on Tajikistan, the conditions are similar: high incidence and prevalence rates, high turnover rates of prisoners, and the inadequacy of health care in the prison system and the general health system would indicate the country faces high risks of drug resistant TB.

(v). HIV/AIDS and Sexually Transmitted Diseases

24. Data regarding HIV/AIDS and sexually transmitted diseases (STDs), are only minimally available, but point to many worrying trends. Although the number of reported cases of HIV infection is still very small,<sup>15</sup> limited detection and screening capacity and cultural barriers are likely to result in significant under-reporting of the actual number of cases. Some estimates suggest that actual HIV cases may range from 20-100 times the officially reported rates (Amato-Gauci, 2003).

25. Tajikistan faces a number of high risk factors that make the population susceptible to a rise in HIV/AIDS. They include: (a) the high prevalence of Hepatitis B; (b) rising incidence rate of syphilis (8 times the levels in 1991) and gonorrhea (doubling over the last two years); (c) the adoption of heroin as the drug of choice and the rising price of heroin which would likely encourage high risk injecting practices; (d) significant role of Tajikistan as a major heroin trafficking route (with annual seizures estimated at over 4 tons); (e) common practice of sharing needles (93 percent) due to the difficulty in finding syringes (especially in prisons); (f) massive labor migration of seasonal workers to Russia, where the prevalence of HIV is growing at an alarming rate, and risky sexual behaviors in the neighboring countries; (g) poor knowledge and attitudes to practicing of safe sex and condom usage among the general population; and (h) growing prevalence of commercial sex workers (estimated at 3000) in country, some of whom use injectable drugs (Amato-Gauci, August 2003).

26. Detection and screening of HIV/AIDS, and other sexually transmitted diseases, as well as alcohol and other drugs, is severely limited due to both cultural barriers and limitations of capacity in the health system. The laboratory facilities are inadequate, there is a shortage of trained health staff, and no reliable surveillance system for HIV. Antiretroviral treatments for HIV/AIDS are also not currently available in Tajikistan. In 2002 Tajikistan submitted a successful proposal to the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and has received an award of \$2.4 million, but the Government estimates that the needs for the HIV/AIDS sector are much greater.

27. Tajikistan is facing a growing injecting drug use problem, estimated at between 30,000 and 55,000 Intravenous Drug Users (Amato-Gauci, 2003). Because of the strong correlations between substance abuse and HIV/AIDS, it is critical that improved data and information be made available on this health problem to guide the development of appropriate policies and programs for prevention and treatment.

28. According to TLSS 2003, only 4.3 percent of the women of childbearing age reported having used condoms. Among those who responded that they use condoms, the main reason given was for contraceptive purposes and only 13 percent were aware of its value in preventing STIs. Among the non-users, over half indicated that their partners objected to the use of condoms, 38 percent believed condoms were not effective in preventing pregnancies, and 25 percent indicated that condoms were too expensive. Only 27 percent of these respondents indicated that they had heard of HIV/AIDS, and just 18 percent of the respondents knew that the use of condoms might reduce the risk of HIV/AIDS.

29. This low level of knowledge among the population regarding the value of condoms is significant, and reveals a very high risk of unwanted pregnancies as well as STIs, and HIV/AIDS. There are

<sup>14</sup> [http://www.cacianalyst.org/view\\_article.php?articleid=2340](http://www.cacianalyst.org/view_article.php?articleid=2340) and [http://www.kcl.ac.uk/depsta/rel/icps/fighting\\_tuberculosis.pdf](http://www.kcl.ac.uk/depsta/rel/icps/fighting_tuberculosis.pdf)

<sup>15</sup> The number of HIV/AIDS cases officially reported in Tajikistan was 119 at the end of 2003, Asia-Plus. "Shortage of Skilled Personnel – Main Problems of Health Sector in Republic": Health Minister. January 16, 2004.

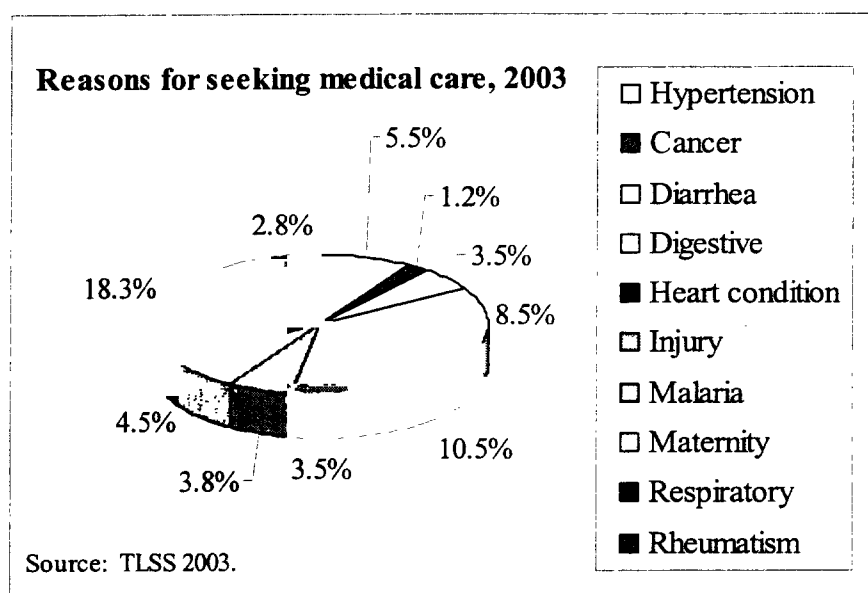
significant differences by income quintile. Those in the highest income groups were much more likely to know about HIV and the protective value of condoms than those in the lowest income strata (37 percent compared with 23 percent, and 24 percent compared with 14 percent). However, it is also worth noting that much greater variability can be found across regions. GBAO, which has high educational achievements among women, shows the highest level of knowledge about HIV and the protective value of condoms; Khatlon and RRS show the lowest levels of awareness. Women in urban areas are nearly twice as knowledgeable as are those in rural areas.

(vi). Noncommunicable Diseases

30. While Tajikistan faces a rapid increase in communicable diseases, the country is facing the challenges of managing an epidemiological transition and a significant rise in non-communicable diseases. In Tajikistan, non-communicable diseases are also among the top five causes of death. According to WHO data, the leading causes of death in Tajikistan in 1999 were cardiovascular diseases and diseases of the respiratory system. TLSS 2003 data confirm this trend: some 20 percent of those seeking medical care indicated chronic conditions as the primary reason for seeking care, with cardiovascular diseases as a leading cause of morbidity among non-communicable diseases (see Figure 3). Cardiovascular diseases affect not only the elderly, but affect a significant number of the working age population.

31. Alcohol consumption, although still relatively low, is reportedly on the rise, along with drug abuse. According to WHO, morbidity from drug-related disorders and alcohol psychosis in Tajikistan is 24.6 per 100,000, but there are significant regional differences: in GBAO the incidence is high at 97.3/100,000 (WHO Regional Office for Europe, 2003). It is generally known that alcohol and drug abuse contribute to other health problems (e.g., liver dysfunction, cardiovascular disease, cancer) and social problems (e.g., domestic violence, transportation and occupational accidents).

**Figure 3: Reasons for Seeking Health Care, 2003**



32. Tobacco use is another area that warrants close monitoring: according to recent WHO data, consumption is increasing, especially among the youths in Tajikistan. One study found that 28 percent of students in senior classes reported smoking cigarettes, and another found that 21 percent of school

children use chewing tobacco (WHO, 2003). These trends are a source of concern and call for urgent attention to introduce appropriate policies and programs, especially among the youth, to discourage the use of these substances.

(vii). Disabilities, including Mental Health: Neglected Problems

33. WHO estimates that in general 10 percent of any given population is disabled, including all levels of severity, and that 1.5 percent require some level of rehabilitation care (World Health Organization, 1981). These disabilities result from both congenital conditions and those related to both intentional and unintentional injuries. In areas of conflict and post-conflict, the level of disabilities and mental health problems are likely to be higher. Psychological disorders and their consequences are also endemic in virtually all societies. In a multi-center study carried out by WHO in the early 1990s, it was found that an estimated 20 percent of those seeking care at general medical centers are also diagnosed with a mental health disorder and 40 percent are diagnosed with minor disorders (Sartorius, N, et al., 1993). Psychological conditions, often occurring concurrently with other health problems, have negative health and social consequences, and are often associated with lower educational attainment, higher rates of unemployment, and lower socioeconomic status. But people with disabilities and mental health problems have to cope with stigma, exclusion, taboo, and refusal by their society to recognize their problems. For these reasons, their problems are often under-reported and few resources are allocated to address them.

34. There have been no national studies on the prevalence of mental health or disabilities in Tajikistan, and these remain an important but poorly understood aspect of the health status of the Tajik population. Some estimates can be derived from the TLSS 2003, although these figures should be interpreted with caution since there is some question whether a household member suffers from chronic illness or disability, and some difficulty in identifying the type of disability by the "organ or body part ...most affected." The responses to this question showed that some 6.3 percent of respondents reported having some form of chronic condition or disability, and among these, 41 percent report some type of disability and around 5.5 percent reported having a mental disorder.

35. In 2003, Médecins Sans Frontières (MSF) issued a report on the status of psychiatric care in Tajikistan. According to that report, the Ministry of Health estimates that there are 40,000 persons with some type of mental disorder in Tajikistan, most of these without any form of care (Médecins Sans Frontières, 2003). In 2003, there were only about 1,000 patients reported in treatment in one of the 16 psychiatric institutes in the country in that year. These figures suggest that the problem of disabilities and mental health problems probably represent a significant but under-reported burden on the families and communities. Moreover, as in other countries with a weak mental health delivery system, there are significant problems with both missed and inappropriate diagnoses – and resultant inappropriate treatment – and lack of integration of mental health services within existing systems of care, including for example, primary care and emergency facilities.

### **III. IMPACT OF POVERTY ON HEALTH**

36. With some 57 percent of the population reported living below the poverty line (World Bank, 2004), a majority of the Tajik population is at risk of further impoverishment due to poor health conditions and lack of access to appropriate care. As in all societies, infants and children, pregnant women, and the elderly are most vulnerable to the adverse effects of poor health, and require special attention. The Government also formally identifies other priority vulnerable groups, including military veterans, migrant workers, refugees, intravenous drug users and sexual workers. Malnutrition is both an important outcome and cause of poverty, and should be given due attention in the implementation of the Poverty Reduction Strategy. Lack of access to safe drinking water and sanitation systems, including the breakdown of the irrigation system, is a major contributing factor to high incidence of communicable diseases in Tajikistan.

**A. Impact of Social Problems on Health**

37. Tajikistan faces a number of growing social problems that impose additional risks to the health and well-being of its citizens. As a consequence of war and migration, there are now many widows, orphans, disabled persons, and elderly who are left with little or no family support. Women-headed households with many children, and families with disabled and/or elderly adults, are considered among the most vulnerable groups in the country.<sup>16</sup> These groups are among the poorest in Tajikistan, and their health is most likely to have suffered greatly from lack of access to basic health services. The recent economic improvements may not be benefiting these groups of population, as there is evidence of a widening disparity in access to health care between the poorest and wealthiest groups of the population.

38. The dramatic increase in migrant labor has also had a significant impact on the social and economic welfare of Tajik families. According to a recent International Organization of Migration (IOM) report, more than half (54 percent) of migrant workers regularly send financial assistance to their families, and an analysis of household consumptions of these migrant workers shows that this assistance is used primarily for improved nutrition, new clothing, and medical expenses.<sup>17</sup> While these remittances provide a degree of social safety net for the families, labor migration has also brought with it new social problems. The IOM report notes that families of migrant workers face special health risks, for example occupational accidents and other related health problems, transmission of new diseases (e.g., sexually transmitted diseases and HIV/AIDS), a deterioration in the behavior of children of migrant workers, and a loss of family and social stability.<sup>18</sup>

39. The expansion of narcotic drug trafficking is not only undermining the social cohesion of the Tajik society, but poses a serious emerging public health risk to the Tajik population. These and associated criminal activities are giving rise to new groups of marginalized population in Tajikistan, including intravenous drug users (IDU), commercial sex workers (CSW) and prisoners. These groups are especially at high risk for transmission of diseases such as tuberculosis (TB), HIV/AIDS and sexually transmitted infections (STIs), because of the associated social stigmas their needs are often neglected. TB prevalence rates in Tajikistan are already very high, especially among the prison population, and if left unchecked could have a devastating effect on the country's productive work force. HIV/AIDS is still in the early stages of transmission, and limited mainly to IDUs. But there are early indications that the disease may already be spreading to the general population, and unless aggressive preventive measures are taken, Tajikistan could face a very costly and intractable public health crisis.

40. Some estimates suggest that as much as 30 to 50 percent of Tajikistan's economic activity may be associated with these activities<sup>19</sup>. Drug trafficking is giving rise to domestic drug use, which is not only a vehicle for spreading HIV/AIDS and other related diseases, but undermines the social cohesion of families and communities, and destroys the lives of many young people. These added social risk factors present a serious challenge to the country's limited capacity to meet the health and other basic needs of the population.

41. Adolescents and youth are particularly at risk for HIV/AIDS and other related diseases, especially as a consequence of poverty. Increasingly, institutionalization of children has become a common coping mechanism practiced among poor families. Children are placed in boarding schools or other facilities simply because their families cannot afford to feed them. These institutions operate under severe financial constraints, and the children receive low-quality education; many are forced to leave the institutions at age 16 and find themselves on the street, and likely to fall into crime or prostitution as they

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<sup>16</sup> According to the poverty profile compiled by the National Social Investment Fund, Tajikistan, 2002.

<sup>17</sup> International Organization of Migration, 2003.

<sup>18</sup> International Organization of Migration, 2003.

<sup>19</sup> Godinho, J., et al., 2004, p. 52



have no marketable skills.<sup>20</sup> In turn, the young girls are at risk for early and unwanted pregnancies, giving birth to children for whom they can ill-afford to provide adequately. While the average age of commercial sex workers (CSWs) is 20-25 years of age, adolescents as young as 12-13 are also CSWs; and many of these adolescents are street children for whom the vicious cycle of poverty, HIV/AIDS, and other high risk behavior and health problems is a daily reality. Of significant concern is the report that one in five CSWs are engaging in prostitution in order to support their drug habit. Moreover, adolescents in Tajikistan have the lowest rate in the region of knowledge regarding the use of condoms to protect against HIV infection: less than a quarter of youths aged 14-17 were aware of this mode of prevention (Godinho et al, 2004).

42. Finally, it is worth noting that Gorno-Badakhshan Autonomous Oblast (GBAO), the region with the highest percentage of poor in Tajikistan, has one of the lowest prevalence rates of child malnutrition and highest awareness level among women about HIV/AIDS. The relative success of GBAO in these areas could be attributed in part to the high educational levels of its population as well as to the active health promotion and community health activities conducted in the region, and could serve as a model for other regions.

**Table 3: Summary of Poverty Data (Adjusted for Regional Prices), 2003**

| Region   | Overall Poverty rate | Share of poor in the country | Heard about HIV/AIDS/ <sup>1</sup> | Knows condom reduces the risk of HIV/AIDS/ <sup>1</sup> |
|----------|----------------------|------------------------------|------------------------------------|---|
| GBAO     | 84%                  | 4%                           | 54%                                | 31%   |
| Sogd     | 64%                  | 32%                          | 29%                                | 21%   |
| Khatlon  | 78%                  | 40%                          | 17%                                | 15%   |
| Dushanbe | 49%                  | 7%                           | 52%                                | 23%   |
| RRS      | 45%                  | 17%                          | 25%                                | 8%  |
| Total    | 64%                  | 100%                         | 27%                                | 17%   |

Sources: Tajikistan Poverty Assessment Update, 2004. Poverty line is defined as incomes below \$2 (PPP adjusted) per capita per day. Note: 1. Women's Questionnaire from TLSS 2003.

## **B. Access to Safe Water and Hygiene**

43. Poor quality of water and lack of access to sanitation contribute to high incidence of infectious diseases and malnutrition in Tajikistan. In 1990-91, it was estimated that some 63 percent of the population had access to piped water. This rate had dropped to around 46 percent in 1999 (TLSS 1999), but may have improved slightly to 54 percent in 2003 (TLSS 2003). According to the TLSS 2003 findings, in 2003 around 41 percent of the population continued to depend on rivers, lakes, ponds and wells compared with 46 percent in 1999.

<sup>20</sup> Cantwell, N. (2000) Last and Least?: Children in Need of Special Protection, pp. 141-172, in: Societies in Transition: A Situation Analysis of the Status of Children and Women in the Central Asian Republics and Kazakhstan (Draft version). UNICEF: Kazakhstan. Cited in: Penrose, J. (2003), p. 53

**Table 4: Household Sources of Water Supply in 1999 and 2003**

| Sources of water           | 1999 | 2003 |
|----------------------------|------|------|
| Piped water and public tap | 46%  | 54%  |
| water truck                | 3%   | 3%   |
| well or spring             | 21%  | 12%  |
| river, lake, pond, similar | 25%  | 29%  |
| Other                      | 5%   | 2%   |

Sources: TLSS 1999 and 2003.

44. GBAO continues to show the highest percentage of population that depends on access to unsafe sources of water, while Dushanbe has the highest access to piped or tap water. However, water supply infrastructure in the Tajikistan is in poor condition, which affects the quality and potability of the piped water supply. It is estimated that around 30 percent of the water pipeline network is not operational, and water purification facilities effectiveness does not exceed 30 – 40 percent (PRSM 2002). Thus, access to piped water does not necessarily guarantee a safe drinking water supply. This is evident from the frequent outbreak of water-borne diseases such as typhoid fever, even in urban settlements such as Dushanbe where access to piped water is high.

**Table 5: Household Sources of Water Supply by Oblast, 2003**

|                              | GBAO | Sogd | Khatlon | Dushanbe | RRS | Total |
|------------------------------|------|------|---------|----------|-----|-------|
| Piped water or public tap    | 41%  | 36%  | 58%     | 99%      | 55% | 54%   |
| Water truck                  | 1%   | 7%   | 2%      | 0%       | 0%  | 3%    |
| Spring or Well               | 18%  | 18%  | 4%      | 0%       | 16% | 12%   |
| River, lake, pond or similar | 41%  | 29%  | 34%     | 0%       | 27% | 29%   |
| OTHER                        | 0%   | 1%   | 2%      | 1%       | 2%  | 2%    |

Sources: TLSS 1999 and 2003.

### C. Nutrition and Food Security

#### (i). Food Security

45. In Tajikistan, where just 7 percent of land is considered arable, lack of access to land is an important determinant of poverty and malnutrition for many families in the country (Penrose, 2002). A presidential decree in 1995 provided 50,000 hectares of land to the poor, but many of the plots were misallocated or the poor received poor quality land (Penrose, 2002). Some 70 percent of rural households keep a kitchen garden which augments their diets, and is an important part of their subsistence coping strategy, but is probably not adequate to meet all the needs of the family. According to the Government of Tajikistan, during the 1992-1998 civil war period, there was a significant reduction in the per capita consumption of food<sup>21</sup>. The return to peace has allowed populations to get back to their land, and food production has increased (UNDP 2003).

46. Surveys offer variable results, but they generally confirm a common practice of eating only once or twice a day. The National Nutrition Survey (2003) found that in 2001, 88 percent of families reported consuming 3 meals a day, while in 2003 only 33 percent reported consuming 3 meals a day and 58 percent reported consuming only 2 meals a day. TLSS 2003 results show that an even higher proportion of the population (some 85 percent) consumed just one to two main meals per day. The number of meals

<sup>21</sup> Dr. Haizov, Dushanbe, February 2004, personal communication, reported in Galloway, 2004

per day is predictably lower among the poor, but the practice seems to be widespread even among higher income groups. Based on this practice, it would be important to investigate whether this infrequency of meals at the household level affects the feeding practice of young children, who should be fed at least 3-5 times a day to maintain good health.

47. A commonly used measure of poverty is the percentage of family income being spent on food. In Tajikistan, most families spend a very high proportion of their income on food, consistent with the widespread poverty. The results of TLSS 2003 results show that the households in the poorest quintile reported 71 percent of their household consumptions were for the purchase of food items, while the highest quintile group reported 60 percent. This is a very high percentage of the household budget for food items. One study estimated that 35 percent of households went into debt to purchase food for their families (Penrose, 2002). The TLSS 2003 results also found that 41 percent of the households reported having to reduce the number of meals in the preceding 6 months, and 71 percent reported having had to shift to cheaper food items (Table 6). The lower income groups predictably showed higher susceptibility to food insecurity: 50 percent of the poorest families responded they had to reduce the number of meals in the past six months, compared to 31 percent among the highest income groups.

**Table 6: Response to the Question: in the Last 6 Months Have You Needed to Do Any of the Following?**

|                              | Reduce number of meals | Shift to cheaper food |
|------------------------------|------------------------|-----------------------|
| <b>Consumption Quintiles</b> |                        |                       |
| Q1 (poorest quintile)        | 50%                    | 80%                   |
| Q2                           | 45%                    | 78%                   |
| Q3                           | 42%                    | 71%                   |
| Q4                           | 36%                    | 66%                   |
| Q5                           | 31%                    | 63%                   |
| <b>Oblast</b>                |                        |                       |
| GBAO                         | 6%                     | 73%                   |
| SOGD                         | 55%                    | 75%                   |
| KHATLON                      | 43%                    | 74%                   |
| DUSHANBE                     | 33%                    | 69%                   |
| RRS                          | 39%                    | 62%                   |
| <b>Total</b>                 | <b>41%</b>             | <b>72%</b>            |

Source: TLSS 2003.

(ii). Child Malnutrition

48. Child malnutrition is directly and indirectly associated with poverty, and is a serious problem in Tajikistan. According to the 2003 National Nutrition Survey, 4.7 percent of children 6 months-5 years suffered from wasting<sup>22</sup>, and 36.2 percent suffered from stunting.<sup>23</sup> Malnutrition negatively affected their

<sup>22</sup> "Wasting" (low weight for height) reflects recent illness and/or decreased food intake, often due to the anorexia that accompanies an episode of infection or a decline in the availability of food. Wasting, often called acute malnutrition occurs during seasonal fluctuations (e.g., when infection rates are high or pre-harvest when the food supply is limited) and in emergencies (e.g., floods, droughts). Wasting rates may decline in some areas when the quality and availability of health services has improved.

<sup>23</sup> "Stunting" (low height for age) reflects chronic malnutrition and is a cumulative measure of past nutritional problems and is considered to be the best measure of malnutrition. Chronic malnutrition as measured by height for age is linked to acute malnutrition (weight for height) in that repeated loss of weight in the short term will translate into reduced height in the long term.

health status: according to the National Nutrition Survey 2003 report, malnourished children had “1.4 times higher risk of suffering from illness” than other children.<sup>24</sup> Comparing with children in neighboring countries, Tajikistan has among the highest rates of malnutrition, measured in terms of stunting (see Table 7).

**Table 7: Comparison of Prevalence of Stunting and Wasting Rates in Central Asia**

| Country (target group), Year        | % With Stunting | % With Wasting |
|-------------------------------------|-----------------|----------------|
| Kazakhstan, 1999 (0-5 years)        | 9.7             | 1.8            |
| Kyrgyz Republic (0-3 years), 1997   | 24.8            | 3.4            |
| Tajikistan (6 months - 5 yrs), 2003 | 36.2            | 4.7            |
| Turkmenistan (0-5 years), 2000      | 22.3            | 5.7            |
| Uzbekistan (0-3 years), 2002        | 22.6            | 6.6            |

Source: Reported in Galloway, 2004.

49. On a positive note, a comparison of the 2001 and 2003 National Nutrition Survey results show a decrease in both child wasting and stunting in Tajikistan (see Table 8). The decrease in wasting has been especially dramatic in nearly all the regions. This reduction in wasting is generally attributed to better breastfeeding practices (Galloway, 2004). Overall, national prevalence of stunting also declined slightly from 37.3 percent to 36.2 percent between 2001 and 2003, although it increased slightly in some regions (Kurgan Teppe, Kuliab Zones, and GBAO). The increased prevalence in GBAO was over a one-year period, from 2002-2003.

**Table 8: Trends in Child Malnutrition in Tajikistan, 2001-2003**

|                                   | 2001/ <sup>1</sup> | 2003 |
|-----------------------------------|--------------------|------|
| Percent of children with stunting | 37.3               | 36.2 |
| Percent of children with wasting  | 17.3               | 4.9  |

Source: National Nutrition Surveys, 2001 and 2002. Reported in Galloway, 2004. Note 1: The 2001 Survey did not include GBAO because the areas were inaccessible at the time. Therefore the 2001 figures do not represent a full “national” figure.

50. It is worth noting that in Tajikistan, the prevalence of child malnutrition is not always associated with levels of poverty. In Khatlon Oblast, where the poverty rate is highest, prevalence of stunting among children is also highest at about 41 percent. But children in GBAO have one of the lowest rates of stunting (32.5 percent), although GBAO does not have the lowest poverty rate. Similarly, Sogd Oblast, which has a relatively low rate of poverty, has a high rate of stunting at 36.6 percent. This phenomenon reflects the fact that child nutrition depends not only on the total household wealth and availability of food, but on the knowledge of appropriate feeding practices by members of the household, and particularly by mothers. For this reason, lower prevalence of child malnutrition is often correlated with the mother’s educational level. GBAO has among the highest level of educational achievement Tajikistan, and this may be helping to over-ride some of the disadvantages associated with poverty.

51. Finally, it should be pointed out that the Millennium Development Goal indicator uses underweight (low weight for age) as a measure of child malnutrition. This indicator was not included in the National Nutrition Surveys, which measured stunting (low height for age) and acute malnutrition or wasting (low weight for height). The use of low weight for age is a better measure of malnutrition than acute malnutrition because it is less likely to be affected by seasonal fluctuations, and better captures the nutritional status and adequacy of infant and young child feeding. It is recommended that the future

<sup>24</sup> Action Against Hunger/ECHO (2003) National Nutrition and Water and Sanitation Survey 2003. Dushanbe: Action Against Hunger/ECHO, p. 21

design of the National Nutrition Surveys include low weight for age as the preferred measure of child malnutrition.

52. Finally, it should be pointed out that most countries worldwide use underweight (low weight for age) as the measure for nutritional status and to make comparisons across countries malnutrition. The data (weight) are easier to collect than data for the more accurate measure –height for age. Moreover, because weight-for-age is the conventional factor, regional and international comparisons are possible. However, weight-for-age was not included in the reports of the National Nutrition Surveys, which measured stunting (low height for age) and acute malnutrition or wasting (low weight for height). The use of height for age is a better measure of child malnutrition than weight for age because it is less likely to be affected by seasonal fluctuations related to disease and food availability and therefore better captures the nutritional status and adequacy of infant and young child feeding. The National Surveys include data that would allow for presentation of weight for age. Because nutrition is such a critical health problem in Tajikistan and the data are available, it is recommended that the additional analysis be carried out to yield weight for age data.

(iii). Micronutrient Deficiencies

53. Micronutrient deficiencies are prevalent in Tajikistan, and reflect poor and undiversified diets and poor feeding practices. Iodine deficiency is a serious problem, especially among those living in the mountains. Iodine deficiency not only affects the physical health of the individual, but impairs the learning abilities of the children and therefore has serious long-term consequences. Goiter rates are reported around 10-15 percent throughout the country, and as high as 40 percent in children and 65 percent in pregnant and lactating women in some regions (National Nutrition Survey, 2002). A recent national survey shows that 57% of women of reproductive age and 64% of children 6-59 months have some form of iodine deficiency, as measured by low urinary iodine excretion (Government of Tajikistan, 2003).

54. Vitamin A status affects the outcome of measles episodes and is itself compromised when a child contracts measles. There is documented evidence to indicate that a 40 percent reduction in measles mortality could be achieved when children are given vitamin A (Sommer and West, 1996) and conversely, an episode of measles erodes the vitamin A status of children, even among those who are well-nourished (West, 2000). A twice-yearly dose of vitamin A is recommended for children 6-59 months living in areas where vitamin A deficiency is known or under-five mortality rates are high. To provide vitamin A to infants through breast milk in their first six months, postpartum women should receive vitamin A up to 60 days after delivery. National programs are underway to increase coverage of vitamin A supplementation so that over 85% of children in this age group and postpartum women are receiving vitamin A.

55. National rates of anemia are high – 45% of women of reproductive age and 56% of children under three years of age are anemic, according to a recent national survey (Government of Tajikistan, 2003). These are extremely high rates and require focused attention through a combination of nutrition education programs, iron supplementation programs targeted to pregnant women and children under three years of age, and dietary approaches to increase intake of iron and other micronutrients including fortification of flour. Other public health measures, such as controlling malaria, also a cause of anemia, will facilitate anemia reduction (Micronutrient Status Survey in Tajikistan, 2003).

#### **IV. HEALTH SERVICES ACCESS AND UTILIZATION**

##### **A. Trends in Health Services Utilization Rates 1999-2003**

56. Comparison between TLSS199 and TLSS 2003 survey results reveal two significant trends in access to and utilization of health care services. First, the percentage of individuals reporting an illness who sought care increased between 1999 and 2003. Whereas only 26 percent of individuals reporting a

chronic illness used services during the recall period in 1999, 36 percent used services in 2003. In 1999, 46 percent of individuals reporting an acute illness sought care, and in 2003, 55 percent of individuals reporting an acute illness sought care.<sup>25</sup>

57. The second trend is that individuals from the highest total consumption quintile are more likely than individuals in the lowest quintile to use services in the event of an illness, and the *access gap between the high and low income groups widened between 1999 and 2003*. In 1999 only 16 percent of individuals in the lowest quintile reporting a chronic illness used services, whereas 29 percent of individuals in the highest quintile used services, representing a gap of 13 percent. In 2003, 19 percent of individuals in the lowest quintile reporting a chronic illness used services, whereas 48 percent of individuals in the highest quintile reporting a chronic illness used services, a gap of 30 percent. Thus, among individuals with acute care, the gap between the lowest and highest total consumption quintile expanded from 13 percent in 1999 to 15 percent in 2003.

58. Based on these figures, the proportion of population lacking access to health care in terms of “unmet needs” appears to be declining, but the magnitude of inequities in access to care appears to be increasing. The inequities are more pronounced among those reporting chronic diseases compared to those reporting acute illnesses. Among those reporting chronic illnesses, the rich were 2.7 times more likely to seek care than the poor; by comparison, among those reporting acute illnesses the difference was just 1.3 times.

**Table 9: Percentage of Individuals Reporting Illness Who Sought Health Care in 1999 and 2003, by household consumption quintiles**

| Total Consumption quintile | 1999/ <sup>1</sup>   |   | 2003/ <sup>2</sup>   |   |
|----------------------------|--|---|--|---|
|                            | % of individuals reporting a chronic illness who sought care | % of individuals reporting an acute illness who sought care | % of individuals reporting a chronic illness who sought care | % of individuals reporting an acute illness who sought care |
| Total Sample               | 25.6   | 46.4  | 35.9   | 55.1  |
| 1 <sup>st</sup> (poorest)  | 16.1   | 36.9  | 18.7   | 46.8  |
| 2 <sup>nd</sup>            | 31.4   | 46.3  | 39.2   | 52.4  |
| 3 <sup>rd</sup>            | 21.9   | 45.7  | 36.5   | 59.8  |
| 4 <sup>th</sup>            | 28.6   | 52.5  | 37.1   | 54.5  |
| 5 <sup>th</sup>            | 29.0   | 49.6  | 48.4   | 62.2  |

(1) Household total consumption quintiles not adjusted for regional price indices

(2) Household total consumption quintiles adjusted for regional price indices

Source: Cashin, 2004.

## B. Adjusted Illness Reporting

59. The above figures should be interpreted with caution, since illness reporting is subjective and likely to be affected by the individuals’ socio-economic circumstances. Several studies around the world have shown that illness reporting rates are consistently lower among individuals in the lowest income groups compared with individuals in the highest income groups (Cashin 2000; Dow 1996). Thus, the

<sup>25</sup> The comparisons between 1999 and 2003 TLSS health services utilization data should be interpreted with caution, since the recall period for service use was two weeks in the 1999 survey and four weeks in the 2003 survey. However, the comparison of relative utilization rates is likely to be more robust than the comparison of absolute utilization rates.

extent to which household surveys underestimate illness reporting among the poor would result in an underestimation of the unmet need for health care and inequities in health care utilization. To explore this potential bias, the data from TLSS 2003 were further analyzed to estimate the bias in illness reporting related to socioeconomic status, and to adjust the estimates of unmet health care need and under-utilization of health care services among the poor (see Cashin, 2004b, for details on the methodology and results).

60. The results of this study shows that illness reporting in Tajikistan varies systematically across socioeconomic groups, with the poorest individuals significantly less likely to report an illness, even after controlling for individual factors such as age and sex, and regional factors such as poverty rates and the supply of health care services. The under-reporting of illness among the poor is likely related to anticipated out-of-pocket payments for services, which may affect the self-determined threshold at which poor individuals would consider themselves to be sick enough to require medical services. This unreported need represents a "silent barrier" to health care services which would require a more in-depth analysis to determine their cause.

61. Table 10 summarizes the results of the study (Cashin, 2004b) for the sample in the poorest quintile group. For this group, 5.0 percent of individuals actually reported an illness, of whom 2.7 percent of individuals did not seek care, representing about 54 percent of the group in the lowest consumption quintile. After adjusting for the income effects, the predicted reporting of illness increased to 5.7 percent, and the percentage of the group not seeking care was adjusted upwards to 60 percent. Regional breakdowns reveal an even greater variation in illness reporting and use of health care. These results summarized below shows that the greatest gap between adjusted illness reporting and use of health care occurred in Khatlon at 75 percent, and in RRS at 73 percent. The smallest gap between adjusted illness-reporting and actual use of services occurred in GBAO at 40 percent.

**Table 10: Gap Between Reporting Illness and Use of Health Care Services among the Poorest Quintile Households, by Oblast**

| Oblast   | Reported illness<br>(not adjusted)<br>% | Reported Illness<br>(adjusted for<br>income effects)<br>% | Used health<br>services<br>% | % reporting need<br>but not accessing<br>services |
|----------|---|---|------------------------------|---|
| GBAO     | 5.7                                     | 6.2   | 3.7                          | 40  |
| Sogd     | 4.9                                     | 5.7   | 3.1                          | 46  |
| Khatlon  | 4.5                                     | 4.8   | 1.2                          | 75  |
| Dushanbe | 4.7                                     | 5.6   | 3.0                          | 46  |
| RRS      | 6.2                                     | 8.5   | 2.3                          | 73  |
| TOTAL    | 5.0                                     | 5.7   | 2.3                          | 60  |

Source: TLSS 2003 and Cashin, 2004b.

### C. Main Barriers to Accessing Health Care

62. Among those who reported need but did not use health care, financial barriers presented the greatest obstacle to access to health services in 2003. According to TLSS 2003, among those who had expressed need for care, some 50 percent of the population did not receive medical care due to lack of money, and 33 percent decided to self-medicate, and 11 percent expected the problem to go away. This last form of rationalization is typically associated with poverty, and contributes to under-reporting and underutilization of health services among the poor. Only 5 percent of households indicated that the facilities were too far away, of poor quality or not available. Households from Dushanbe and RRS most frequently identified lack of affordability as the main reason for not accessing health care (65 percent).

This may reflect the higher cost of services and proximity to specialized hospitals in the Dushanbe area. Similarly, a higher percentage (58 percent) of urban residents indicated lack of affordability as the main reason for not accessing services, compared to 48 percent of the rural residents.

**Table 11: Reasons for Not Seeking Health Care When Needed, as Percent of Respondents by Oblast and Place of Residence, 2003**

| Reason                                       | Total | Oblast |      |         |          |     | Residence |       |
|--|-------|--------|------|---------|----------|-----|-----------|-------|
|  |       | GBAO   | Sogd | Khatlon | Dushanbe | RRS | Urban     | Rural |
| Couldn't afford                              | 50%   | 35%    | 40%  | 36%     | 65%      | 65% | 58%       | 48%   |
| Self-medicated                               | 33%   | 57%    | 35%  | 44%     | 22%      | 22% | 24%       | 35%   |
| Believed problems would go away on their own | 11%   | 6%     | 18%  | 7%      | 1%       | 9%  | 12%       | 11%   |
| Too far                                      | 3%    | 0%     | 2%   | 7%      | 7%       | 2%  | 2%        | 4%    |
| Facility closed                              | 1%    | 0%     | 1%   | 0%      | 3%       | 0%  | 2%        | 0%    |
| Poor service                                 | 1%    | 3%     | 2%   | 0%      | 2%       | 0%  | 1%        | 1%    |
| No resident physician                        | 0.4%  | 0%     | 1%   | 0%      | 0%       | 0%  | 0%        | 0%    |
| Other  | 1%    | 0%     | 1%   | 0%      | 0%       | 1%  | 0%        | 1%    |

Source: TLSS 2003.

63. In 2003 about half of those in age group 16-64 and over two thirds of the elderly (over 65 years) reported inability to pay as the main reason for not seeking care. Compared with 1999, the elderly population represented a significantly higher percentage of the population who are unable to access care. This would suggest a growing disparity in access to health care for the elderly. The elderly suffer more frequently from chronic conditions related to ageing and usually require more costly care, and increase the financial burden on their family.

#### D. Distribution and Uses of Health Resources

64. According to the official data, significant regional disparities exist in terms of available health resources. For example, Khatlon Oblast and RRS show the lowest figures with respect to the number of health workers per population, number of outpatient visits per population, and inpatient admission rates. This is consistent with the observation that health budget allocation on per capita basis is lowest in RRS and Khatlon Oblast. Khatlon Oblast and RRS also appear to face more problems with quality of care, as will be discussed in the following section.



**Table 12: Health Services Resources and Utilization Rates, Official Statistics, 2002**

| Region   | Inpatient beds per 1000 pop. | Physicians per 1000 pop. | Nurses per 1000 pop. | Number of ambulatory office visits per capita | Number of home visits per capita | Inpatient admission rate, % pop | Average length of stay (days) |
|--|------------------------------|--------------------------|----------------------|---|----------------------------------|---------------------------------|-------------------------------|
| Republican facilities (Tertiary/ Specialist Services) / <sup>1</sup> | 0.4                          | 0.3                      | 0.2                  | 0.07  | -                                | 0.7                             | 13.0                          |
| Dushanbe City/ <sup>2</sup>  | 4.2                          | 3.1                      | 2.2                  | 13.1  | 7.4                              | 7.8                             | 9.9                           |
| GBAO   | 9.6                          | 1.9                      | 4.4                  | 1.5   | 0.4                              | 12.4                            | 15.2                          |
| Khatlon  | 5.2                          | 1.0                      | 2.3                  | 1.3   | 0.5                              | 5.2                             | 13.5                          |
| RRS  | 4.9                          | 1.2                      | 2.5                  | 1.9   | 0.5                              | 6.1                             | 13.5                          |
| Sogd   | 7.4                          | 2.4                      | 4.5                  | 3.5   | 0.8                              | 13.8                            | 13.4                          |
| National Average   | 6.3                          | 2.1                      | 3.3                  | 3.3   | 1.2                              | 9.2                             | 13.2                          |

Source: Calculated from health services data provided by the Republican Medical Statistical Office and demographic data provided by the State Statistical Committee. Note: 1. The utilization rates and per capita figures for the Republican facilities are calculated over the total population since these facilities are, in principle, serving the entire nation. 2. In Dushanbe city, it is possible that there are a significant number of patients from outside the city. This could push the utilization rate upwards.

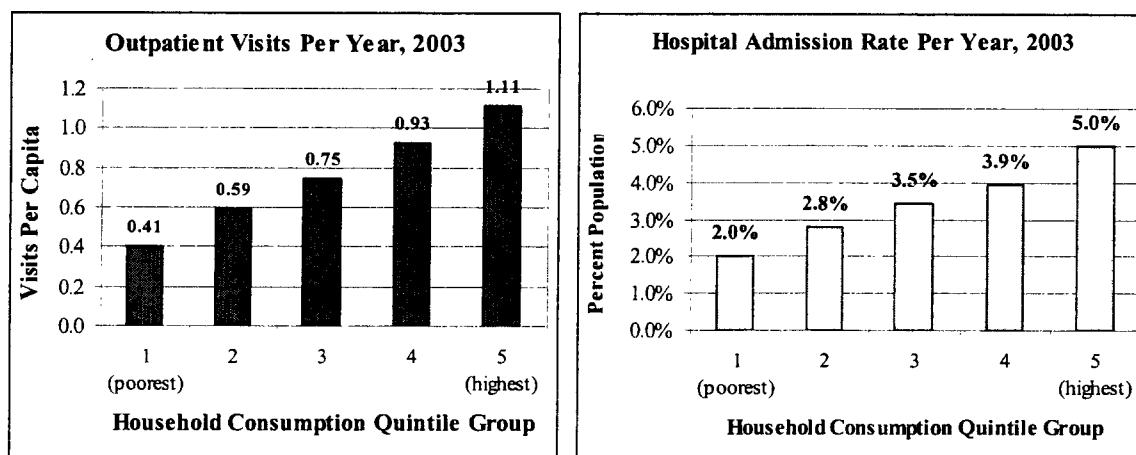
65. In comparison to the administrative data shown above, the utilization rates derived from the 2003 household survey shows significantly lower rates for both inpatient and outpatient care. Unfortunately, these discrepancies in the utilization rates throw into question the validity of the administrative data, and their value in providing useful information on utilization of services. There is an urgent need to improve the accuracy and reliability of health services data in order to enable health policy makers and managers to make rational decisions on improving the quality and efficiency of health services.

**Table 13: Health Services Utilization Rates Based on TLSS 2003 Results**

| Region           | Outpatient visits per year per capita | Inpatient admissions per year (percent) |
|------------------|---------------------------------------|---|
| GBAO             | 0.93                                  | 2.9%                                    |
| Sogd             | 0.79                                  | 5.4%                                    |
| Khatlon          | 0.44                                  | 1.1%                                    |
| Dushanbe         | 0.92                                  | 3.2%                                    |
| RRS              | 0.87                                  | 3.7%                                    |
| National Average | 0.70                                  | 3.2%                                    |

Source: TLSS 2003.

Note: Outpatient visits are based on a four-week recall period, and inpatient admission rates are based on a 12-month recall period.

**Figure 4: Outpatient Visits and Hospital Admission Rates per Year by Household Consumption Quintiles, 2003**

Source: TLSS 2003. Note: Outpatient visit rates are based on a four week recall period, and hospital admissions rate on a 12 month recall period.

## V. HEALTH CARE FINANCING

### A. Trends in Health Financing and Expenditures

66. Reflecting the degree of economic recovery in the country, health expenditures in Tajikistan increased from \$7.40 per capita in 1999 to \$11.60 per capita in 2003. As a share of the economy, the total health spending increased from 4.1 percent in 1999 to 5.8 percent in GDP. Despite the nominal increase of some 50 percent over these two years, the level of health care spending remains extremely low, and places Tajikistan among the lowest spenders in the world, comparable to countries like Laos and Nepal. Moreover, public budget funding for health care remains extremely low and has been declining in real terms in Tajikistan. As a percentage of GDP, government spending on health fell from 1.1 percent in 1999 to 0.9 percent in 2003. As a share of total health spending, the government budget share fell from 26 percent in 1999 to just 16 percent in 2003.

**Table 14: Comparison of Health Spending Patterns in Tajikistan, 1999 and 2003**

| Year                                       | 1999   | 2003    |
|--|--------|---------|
| Total Health Expenditure (US\$ million)    | \$45.0 | \$75.5  |
| Population (million)                       | 6.1    | 6.5     |
| Per Capita GDP                             | \$171  | \$200   |
| Per Capita Total Health Expenditure (US\$) | \$7.40 | \$11.60 |
| Total Health Expenditure, as % GDP         | 4.3 %  | 5.8 %   |
| Government Health Expenditure, as % GDP    | 1.1 %  | 0.9 %   |
| Household Expenditure on Health, as % GDP  | 2.9%   | 4.1%    |

Source: Health expenditure data are from Cashin, 2004. There is considerable variability in the reported GDP data. The 1999 GDP estimate is taken from IMF (2004); the 2003 GDP figure is estimated from IMF 2004 data, using the assumption of 9 percent growth rate cited in the same report. The population data are taken from the State Statistical Commission, based on 2000 Census.

67. By comparison, Table 15 shows that low income countries spent on average 2.5 percent of the GDP on health, more than double the current level of spending in Tajikistan.

**Table 15: Global Trends in Health Care Spending, around 1998**

|  | <b>Low Income</b> | <b>Middle Income</b> | <b>High Income</b> |
|--|-------------------|----------------------|--------------------|
| Average per capita health spending (US\$)            | \$23              | \$178                | \$1812             |
| Average total health spending, as percent of GDP     | 4.6               | 5.6                  | 7.6                |
| Average private spending, as percent GDP             | 2.1               | 2.3                  | 2.4                |
| Average public spending, as percent of GDP           | 2.5               | 3.3                  | 5.2                |
| Private spending as percent of total health spending | 54                | 41                   | 31                 |

Source: Based on World Development Indicators, The World Bank online database. Economies are divided according to 2002 GNI per capita, calculated using the World Bank Atlas method. The groups are: low income, \$735 or less; lower middle income, \$736 - \$2,935; upper middle income, \$2,936 - \$9,075; and high income, \$9,076 or more.

68. It should be noted that the official estimate of GDP is known to underestimate actual GDP due to lack of information on the informal economy (see Kyle, in Cashin, 2004a). The estimated size of the informal and under-reported economy ranges from 40 to 100 percent of GDP, and therefore the figures on the size of health expenditure as a share of GDP should be interpreted with great caution. If one applies the upper bounds of the estimates, then the GDP share of total health expenditures in 1999 and 2003 would fall, respectively, to 2.2 and 2.9 percent of GDP. These spending levels are more consistent with international trends in health expenditures and may be closer to the actual spending patterns. However, in the absence of more reliable measures of GDP it would be difficult at this time to determine the exact size of the informal economy.

69. Table 16, below, shows the distribution of health expenditures by sources of revenues. Total health expenditures include contributions from government, households and external donor. External assistance accounted for some 13 percent of the total spending in the health sector, households contributed 71 percent and government budget accounted for just 16 percent of the total health expenditure.

**Table 16: Distribution of Health Care Expenditures, by Sources and Service Categories, 2003**

| <b>Service Categories</b> | <b>% Total Health Spending</b> | <b>By Sources</b>        |                  |               |
|---------------------------|--------------------------------|--------------------------|------------------|---------------|
|                           |                                | <b>Government Budget</b> | <b>Household</b> | <b>Donors</b> |
| 1. Hospitals              | 33%                            | 32%                      | 42%              | 26%           |
| - Services                | 22%                            | 41%                      | 37%              | 22%           |
| - Drugs                   | 11%                            | 13%                      | 52%              | 35%           |
| 2. Ambulatory care        | 64%                            | 3%                       | 90%              | 7%            |
| - Services                | 12%                            | 14%                      | 61%              | 25%           |
| - Drugs                   | 52%                            | 1%                       | 96%              | 3%            |
| 3. Public Health          | 1%                             | 86%                      | 0%               | 14%           |
| 4. Administration         | 3%                             | 100%                     | 0%               | 0%            |
| <b>TOTAL</b>              | <b>100%</b>                    | <b>16.0%</b>             | <b>70.6%</b>     | <b>13.3%</b>  |

Source: Cashin, 2004.

70. Within government financing, local budgets contribute the majority of health financing, 77 percent, while the republican budget provides only 23 percent, which has been the trend since independence. The disruption of government institutions and functions, as well as strong tendencies toward budgetary decentralization, has created instability in public health financing at the local level. Currently, health expenditures make up only about 14 percent of local government expenditure, down from a high of 20 percent in 1997. In summary, the health budget has been steadily declining in real terms from both republican and local sources. These are worrying trends and contradict the Government's stated objectives of achieving real increases in the public spending in the health sector.

71. Table 17 shows an analysis of the distribution of health expenditures by sources and by lowest and highest income groups. The results show significant inequities that exist in the current health financing system. The poorest quintile group is consistently receiving a smaller share of the government budget for health care at both outpatient and inpatient services. These inequities reflect the fact that the lower income households used health services less than the high income groups, and at present there is no mechanism for targeting government resources to the low income groups.

72. The high level of direct household spending signifies that the existing health financing system offers very limited means of protecting the population against catastrophic illness or injury, or for achieving redistribution of resources to protect the most vulnerable population. Among those who expressed need but did not use medical services, financial barrier was the most frequently given reason for not accessing services (TLSS 2003). Patients facing financial and other barriers to access are likely to use health services only as a last resort, thus delaying diagnosis and treatment until too late. Self-care and self-medication also appear to be fairly common occurrences in Tajikistan, and has implications on health status: purchasing pharmaceuticals at the market and self-medicating to avoid the cost of consultations often lead to additional health problems, such as adverse drug effects and drug resistance. Finally, many communities in Tajikistan have initiated both community-based health services and community financing as a collective response to shortages in public support for basic services. These include pooling of resources for catastrophic care at the village level. Given the level of poverty throughout the country, while these community-based approaches represent important efforts at self-reliance, it is not likely that they will be widely replicated.

**Table 17: Spending on Health by Sources, Lowest and Highest Consumption Quintile Groups, 2003, in Million Somonis<sup>26</sup>**

|                              | <b>TOTAL SPENDING</b> |                  |
|------------------------------|-----------------------|------------------|
|                              | Lowest Quintile       | Highest Quintile |
| <b>Outpatient Services</b>   | <b>15.3</b>           | <b>45.5</b>      |
| - by Government              | 0.5                   | 1.5              |
| - by Household               | 13.7                  | 40.7             |
| - by Donor                   | 1.1                   | 3.3              |
| <b>Inpatient Services</b>    | <b>7.6</b>            | <b>28.8</b>      |
| - by Government              | 2.4                   | 9.1              |
| - by Household               | 3.2                   | 12.1             |
| - by Donor                   | 2.0                   | 7.6              |
| <b>Total Health Services</b> | <b>22.9</b>           | <b>74.3</b>      |
| - by Government              | 2.9                   | 10.6             |
| - by Household               | 16.9                  | 52.8             |
| - by Donor                   | 3.1                   | 10.8             |

Source: Estimated by the author based on data from TLSS 2003 and Health Finance Study, Cashin 2004.

## **B. Tajikistan Health Finance Reform Strategy 2005-2015**

73. Following the amendments to Article 38 of the Constitution of Tajikistan adopted in 2003, and in recognition of a need to revise the legislative basis for health financing, the Government established an inter-sectoral Health Financing Working Group (HFWG), comprising representatives from the Ministries of Health, Finance, Economy, and Social Protection, and the Tajikistan Antimonopoly Services. The Working Group prepared the "Strategy of Health Care Financing in the Republic of Tajikistan for the Period 2005-2015", which comprehensively defines the Government policies on health care financing and clarifies the role of the state in its use of public resources through a state guaranteed package of services. The Strategy is currently being reviewed by the appropriate ministries. Once approved, the document will provide a framework for health financing system reform policy for the country.

74. The main goals of the Strategy are articulated as follows:

- Provision to the population of equal access to a defined package of free or subsidized health services stipulated by the law;
- Clear definition and delineations of functions and interrelation of different counterparts in the health sector;
- Increase in health care resources allocated from the state budget;
- Establishment of a stable linkage between financing and effectiveness in health care;
- Achievement of higher cost-effectiveness of the health care providers' activity (providers).

75. The implementation of the health finance reform strategy will entail the following actions, which are under preparation:

- (a) *Definition of a Program of State Guaranteed essential health services.* This will delineate those services which would be fully funded through the public resources; partially financed by the

<sup>26</sup> The estimates were made assuming the same average unit cost of care for patients in different consumption quintiles. It is possible that the quality and intensity of services provided might differ systematically by consumption quintiles.

households through co-payments; and the remainder which would be not be covered by the state. Informal out-of-pocket expenditures can be tested through pilot schemes into a formal co-payment system that will improve transparency and accountability.

- (b) *Real increase in government spending on health, to be linked with improvements in efficiency and quality of care.* The Strategy proposes to increase its health budget to a level at least comparable to other low income countries in the world. Specifically, the Strategy proposes to bring public spending up to parity with private out-of-pocket spending within a relatively short period. These increases in budget allocation would be explicitly linked with reforms to improve the quality and efficiency of the health system.
- (c) *Introduction of "per capita" budget allocation mechanism.* A population-based budget allocation formula, adjusted for demographic, age and geographic factors, is currently under preparation by the Ministry of Health. This an important step in de-linking of the budget formation process from the input-based budget norms established under the Soviet era; ensuring the distribution of budget according to an objective and transparent measure of service requirements; and achieving a more equitable distribution of resources across geographic regions and population groups. The Strategy envisions a concurrent regulation which would allow any savings generated in the health sector as a result of reforms to be retained within the sector, and not be returned to the Treasury.
- (d) *Pooling of the health budgets under a single payer structure at the Oblast Level.* This measure will address the problems of over-centralized and rigid budget management system and fragmentation of budgets across administrative units and programs. The pooling of budget will remove the existing barriers created by line item budgets and fragmented budget structure, and enable the redeployment of resources across facilities or across administrative regions in order to improve efficiency and quality of care. The establishment of a single payer system at the Oblast level is intended to introduce a decentralized fund management capacity, but consolidated at a sufficiently high level to allow economy of scale and ensure stable risk-pooling to promote equity across rayons.
- (e) *Reforms in the provider payment system and greater managerial autonomy.* The Strategy envisions the introduction of new payment methods which would move the system away from line-item budget allocation to service and performance-based payments. This would also call for the introduction of greater administrative and legal autonomy of the health care provider and the principles of competition and choice for the patients. The participation of nongovernmental health care providers is also included in the provision of state guaranteed services paid by the single payer. For example, on June 20, 2004 the Government issued Resolution 279, "On the Regulation of Free and Fee-based Medical Services Provided by the Public Health Sector in Varzob and Dangara Rayons."

## VI. ORGANIZATION, MANAGEMENT AND QUALITY OF HEALTH CARE SERVICES

76. The years of civil war and under-financing have exacted a heavy toll on the existing health infrastructure. Much of the system has been destroyed, especially in the southern parts of the country, and those facilities that remain standing lack functioning equipment, lack access to water or power, and operate under suboptimal conditions, especially in the more remote and rural communities. Compounding the problem of low resources, Tajikistan has inherited a Soviet health system, whose norms and standards are based on outdated medical practices that no longer conform with modern standards of quality and efficient care. Tajikistan will require years of investments in human resources and infrastructure in order to rebuild and modernize its health delivery system.

## **A. Health Administrative Structure**

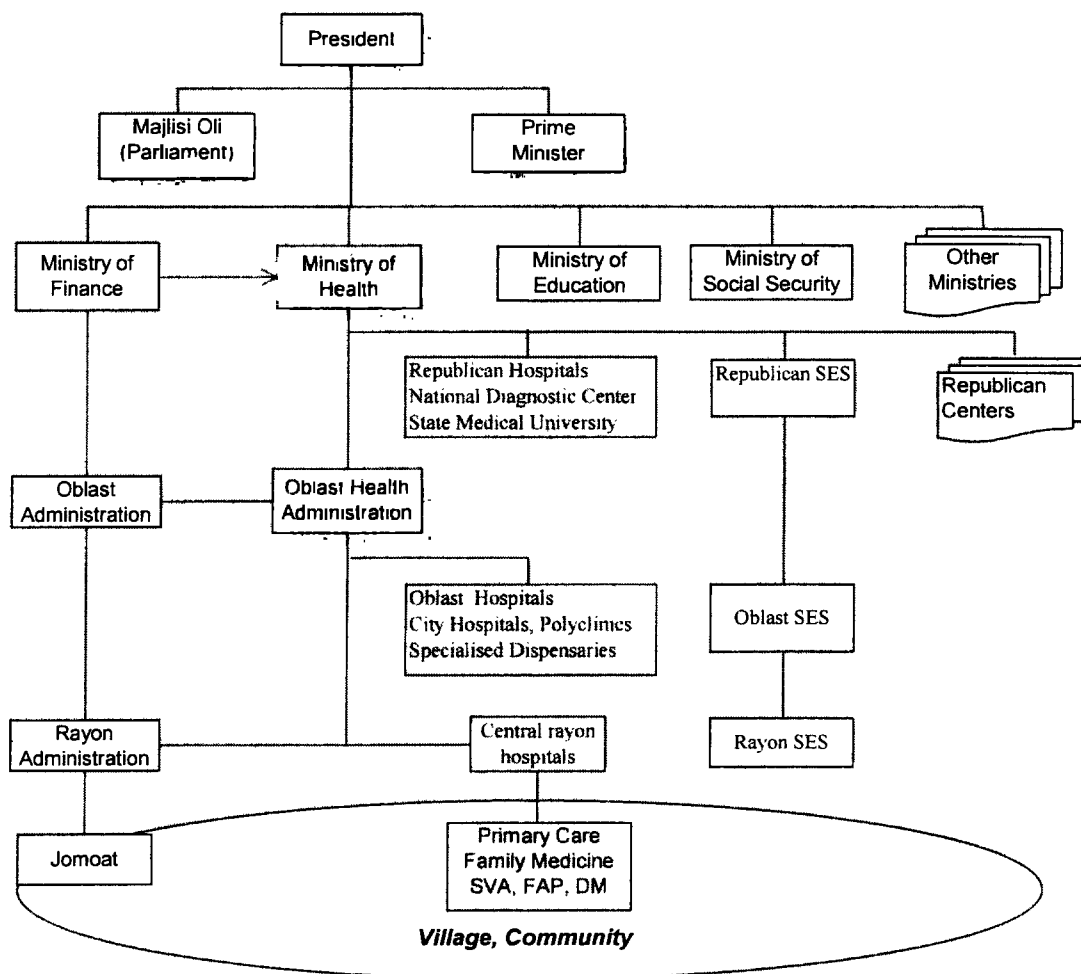
77. The organizational structure of the health system in its current state is an impediment to efficient operations. The system is segmented by administrative units (Republican, Oblast and Rayon levels) and health services in these units function as separate entities, as shown in Figure 5. It is therefore difficult to obtain coordination across different levels of care and ensure continuity of care for the patient across different administrative units and specialties.

78. The Law on Local Self Management (1991, amended in 1992 and 1993) assigns a broad range of responsibilities to local government, including health. As a consequence, Tajikistan has a system of dual subordination, in which the heads of the local health departments report not only to the local government chairman, but to the corresponding sectoral department at the next-higher tier of government.<sup>27</sup> Thus the chief doctor in rayon would report to both the chairman of Hukumat at the Rayon level and the head of the health department in the oblast to which the rayon belongs. The dual subordination may further complicate the management of the health system. The Sanitary Epidemiological Services have a separate line of authority and budget.

79. Another complicating factor is the role of the MOH with respect to the Rayons of Republicans Subordination (RRS). In the absence of an Oblast administrative structure, the MOH must serve a dual function with respect to the RRS. The proposal for decentralization of some of the health fund management functions to the Oblast level will require a different solution for RRS.

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<sup>27</sup> William Dillinger, Public Expenditure and Institutional Review, Draft Report, 2004.

**Figure 5: Organizational Structure of Government Health System****Organizational Structure of the Government Health System in Tajikistan****B. Primary Health Care**

80. The structure of the health delivery system inherited from the Soviet Union is a highly complex and hierarchical system. In urban areas, outpatient services are provided at polyclinics that are segmented into separate clinics for adults, children, and women's reproductive health, and through specialized dispensaries, that address specific diseases such as tuberculosis, oncology, and endocrinology. There are also health posts attached to schools, public enterprises, and other institutions. In the rural areas, the first point of contact used to take place at Feldsher and Maternity Points (FAP), which were later converted into Medical Houses (formerly Medicinski Dom, now renamed Dom Zdravie) which are staffed by nurses. The rural outpatient services are also provided through the Rural Physician Ambulatory Facilities (SVA) and rural hospitals (SUB). These rural outpatient services are managed by the Central Rayon Hospital administration.

81. Today, the total number of ambulatory facilities is 2,798, which means that there is overall a facility per 2,300 populations. From an international perspective, this is a very small number of population served per facility, even adjusting for the fact that the country is dominated by sparsely population rural regions.



**Table 18: Distribution of Ambulatory Health Facilities by Oblasts, 2002**

| Oblast,<br>Dushanbe,<br>Dep.RRP and<br>other Ministries | Population       | Total Ambulatory | Health Point | Medical House | SVA        | Polyclinic | Dispensary without bed | Specialty Center | SES       |
|---|------------------|------------------|--------------|---------------|------------|------------|------------------------|------------------|-----------|
| RRS   | 1,433,900        | 675              | 13           | 471           | 137        | 1          | 3                      | 37               | 13        |
| Sogdi   | 1,962,400        | 704              | 86           | 360           | 133        | 6          | 4                      | 96               | 19        |
| Khatlon   | 2,293,000        | 1,086            | 38           | 699           | 210        | 7          | 11                     | 94               | 27        |
| GBAO  | 213,000          | 235              | -            | 160           | 33         | 2          | 2                      | 29               | 9         |
| Dushanbe  | 604,000          | 47               | 18           | -             | -          | 14         | 1                      | 9                | 5         |
| Other Ministries  | 6,506,300        | 15               | 11           | 3             | -          | -          | -                      | -                | 1         |
| Dep. RRP  | 6,506,300        | 36               | 3            | 16            | -          | -          | 3                      | 14               | -         |
| <b>Grand total</b>                                      | <b>6,506,300</b> | <b>2,798</b>     | <b>169</b>   | <b>1,709</b>  | <b>513</b> | <b>30</b>  | <b>24</b>              | <b>279</b>       | <b>74</b> |

82. In the late 1990s, the Government began to introduce reforms in the primary health care system in selected pilot rayons. The reformed primary care services are based on the family medicine care model, and streamlines all RHCs, RHs and FMPs into Rural Health Centers and Health Houses which serve catchment populations ranging from less than 5,000 to 15,000. Importantly, while the physical structures of the Medical Houses (formerly FAPs) will be eliminated, the function of feldshers (community health workers) is maintained under the family medicine team. As shown in Table 19, if the rationalization of the Primary Care services were to be extended to the national level, it would result in the consolidation of outpatient facilities from 2,276 to 1,150. One of the major bottlenecks in the implementation of the rationalization plan is the speed with which family physicians and nurses can be trained to take up these functions.

83. It should be noted that a number of the ambulatory physicians are specialists whose functions are better served within the outpatient department of a hospital facility. The role of outpatient specialists has not yet been defined in the reform strategy. Their roles would need to be defined in the context of the rationalization plan of both the primary care and hospital services.

**Table 19: Reforming the Primary Care Health Facilities**

|   | Existing Ambulatory System | Reformed Primary Health Care System |
|---|----------------------------|-------------------------------------|
| Number of Medical Houses                    | 1709                       | -                                   |
| Number of SVAs                              | 513                        | -                                   |
| Number of polyclinics                       | 30                         | -                                   |
| Number of special dispensaries without beds | 24                         | -                                   |
| Total Number of Outpatient Facilities       | 2,276                      |                                     |
| Number of Family Health Centers:            |                            |                                     |
| - Type A (<5,000 population)                |                            | 414                                 |
| - Type B (5,000—10,000 population)          |                            | 529                                 |
| - Type C (10,000 – 15,000 population)       |                            | 207                                 |
| - TOTAL                                     |                            | 1,150                               |
| Number of Ambulatory Physicians             | 5,811                      | -                                   |
| Number of Family Doctors                    | 261                        | 3329                                |

Source: Republican Center for Medical Statistics and Information and authors' estimates for the reformed primary care services.

### C. Hospital Services

84. Under the Soviet system, the health system contained a large number of hospitals, with a separate hierarchy of hospitals at the national, Oblast, City, District and village levels, and a large number of specialties. Currently, Tajikistan has a total of 448 hospitals ranging in sizes from facilities with 20 beds to over 500 beds. There are approximately 60 beds per facility, which indicate that the inpatient services are highly fragmented and resources are not used in the most efficient way.

**Table 20: Distribution of Hospitals by Oblast, 2002**

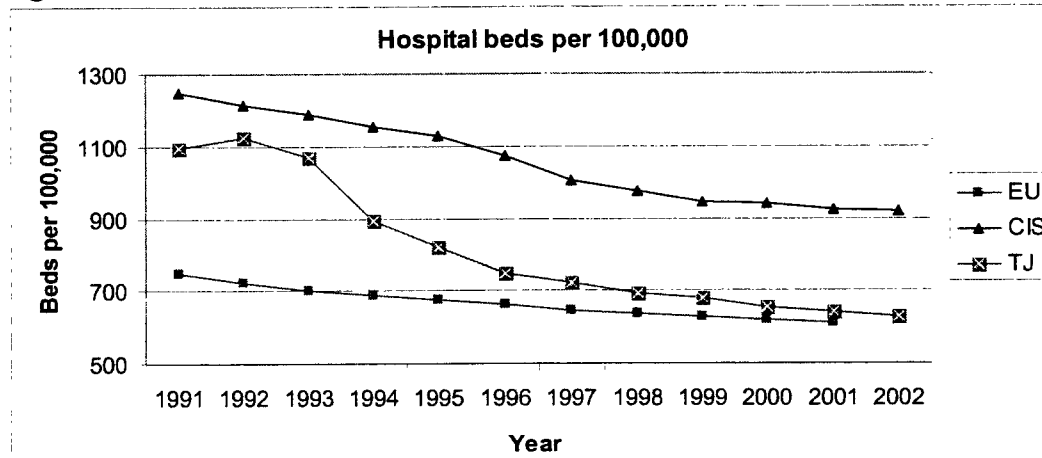
| Oblast, Dushanbe, Dep.RRP and other Ministries | Population       | Total Inpatient fac. | Total Beds    | Therapy      | Infectious Diseases | Tuberculosis | Surgery      | Trauma       | Ob/Gyn       | Pediatric    |
|--|------------------|----------------------|---------------|--------------|---------------------|--------------|--------------|--------------|--------------|--------------|
| RRS  | 1,433,900        | 84                   | 4,533         | 1,038        | 683                 | 155          | 569          | 138          | 959          | 991          |
| Sogdi  | 1,962,400        | 143                  | 9,306         | 2,076        | 1,259               | 555          | 1,110        | 437          | 2,414        | 1,455        |
| Khatlon  | 2,293,000        | 143                  | 9,443         | 1,925        | 1,516               | 735          | 1,225        | 333          | 1,796        | 1,913        |
| GBAO   | 213,000          | 39                   | 1,408         | 305          | 190                 | 60           | 220          | 35           | 312          | 286          |
| Dushanbe                                       | 604,000          | 18                   | 1,652         | 260          | 607                 | 100          | 188          | 20           | 370          | 107          |
| Other Ministries                               | 6,506,300        | 5                    | 400           | 185          | -                   | -            | 110          | -            | 55           | 50           |
| Dep. RRP                                       | 6,506,300        | 16                   | 560           | 105          | 20                  | -            | 50           | 105          | 160          | 120          |
| <b>Grand total</b>                             | <b>6,506,300</b> | <b>448</b>           | <b>27,302</b> | <b>5,894</b> | <b>4,275</b>        | <b>1,605</b> | <b>3,472</b> | <b>1,068</b> | <b>6,066</b> | <b>4,922</b> |

Source: Republican Center for Medical Information and Statistics.

85. The number of hospital beds in Tajikistan has decreased steadily from 10.8 to 6.3 per 1,000 between 1992-2002. In the early 1990s, there was a deliberate effort to reduce the number of hospital beds by about 30 percent as part of the rationalization program. Unfortunately, this reduction in beds also resulted in a reduction of the health budget, which is linked to number of beds rather than to services. The decrease in hospital beds was intended to be replaced by an increase in primary care services, but due

to lack of resources progress has been slow in this area. Official statistics indicated that the number of hospital admission rates has decreased from over 20 percent in 1999 to an estimated 9 percent in 2002. This reduction in utilization of hospital services would seem to be attributable to inadequate financing, absence of necessary medicines, and decline in hospital quality services, rather than on improvements in the primary care health sector. The average length of stay has stayed around 13 days, while bed occupancy rate has dropped to below 50 percent, indicating significant inefficiencies in the system.

**Figure 6: Trends in Number of Hospital Beds in EU, CIS and Tajikistan, 1991-2001**



Source: WHO Health for All Database.

#### D. Pharmaceuticals

86. Due to the limited budget, the Government provides only a very limited supply for pharmaceuticals, and the country has relied mainly on humanitarian assistance and household spending. The Government budget on pharmaceuticals amounted to just 1 percent of total health expenditure, and is limited to the most basic supplies. This has had a major impact on the quality of care and access to services for the population. As discussed above, most of the household out-of-pocket expenditures are spent on pharmaceuticals, much of it purchased without prescription or adequate consultation on appropriate uses. Consequently, it would appear that a significant part of household expenditures on health is going towards ineffective and possibly dangerous uses of pharmaceuticals.

87. The public supply system collapsed after independence and has not been distributing any drugs since the mid-1990s. In its place, a number of NGOs have been providing emergency drugs through a supply system set up, coordinated, and maintained by the Pharmaciens Sans Frontières (PSF). One of the major strategies of the Government is to incorporate the external drug assistance program into the national system of drug procurement and management, but it lacks capacity to do so. The Asian Development Bank is currently providing technical assistance to strengthen the coordination of humanitarian and donor assistance into a consistent, national pharmaceutical management system.

88. Due to Government's inability to control the quality as well as the flow of drugs into the country, fake, counterfeit, and low-quality drugs are widespread and have contributed to the prescription of multiple drugs. The result is increased drug expense, developing drug resistance, and distrust of the health sector among the population. Lack of access to drugs is a major concern and the purchase of inappropriate or poor quality drugs represents a major waste of scarce resources and danger to the health of the population.

89. Among the CAR countries, Tajikistan has the lowest number of additional drugs and highest consistency with the WHO model list. The inclusion of 139 brand names in the Tajikistan EDL is a source of concern. This would suggest that they have not defined their policy towards generic drugs, and the entry of expensive drugs into the market which the country cannot afford.

**Table 21: Comparative Table of Essential Drug List of Central Asian Countries and WHO Model List**

| Organization / Country | Number of drugs from WHO List | Form & Dose | Alternative drugs | Additional drugs | Brand names | Total Number of molecules |
|------------------------|-------------------------------|-------------|-------------------|------------------|-------------|---------------------------|
| WHO '99                | 306                           | 595         | 0                 | 0                | 0           | 306                       |
| KAZ                    | 177 (48%)                     | 452         | 62                | 130              | 414         | 369                       |
| KYR                    | 146 (51%)                     | 494         | 55                | 86               | 0           | 287                       |
| TAJ                    | 200 (85%)                     | 301         | 17                | 19               | 139         | 236                       |
| UZB                    | 136 (40%)                     | 443         | 65                | 140              | 0           | 341                       |

\*Total number excludes brand names.

Source: Jafarov and Laing, 2003.

## E. Human Resources

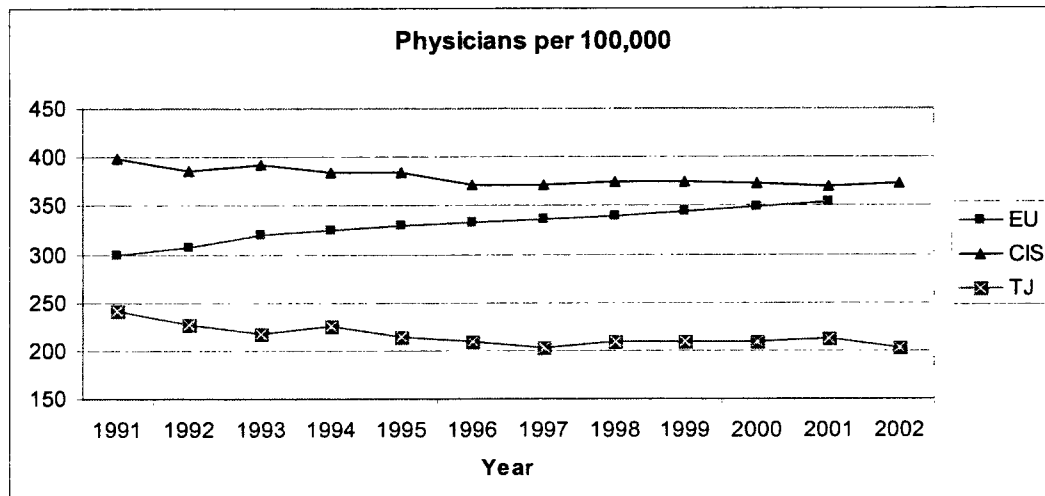
90. The quality of the health system has suffered from a serious brain drain over the last decade, beginning with the civil war and continuing into present years as health workers seek prospects of higher wages abroad. Between 1990 and 1999, nearly 10,000 physicians and 39,000 mid-level health workers left the health sector, especially during the period of civil war. While the medical schools are able to attract students, retention of graduates at the health facilities remains a serious problem, and the system continues to lose qualified workers. Figure 7 and Figure 8 show the trends in the number of physicians and nurses per 100,000 population over the last decade. Thus, Tajikistan faces a serious understaffing problem, especially among the nurses and mid-level workers in rural regions.

91. Within the health workforce, around 42 percent of 5,673 practitioners are involved in the delivery of primary health care services. This number includes sanitary and epidemiology services and ambulatory departments of dispensaries and emergency health care facilities. The number breaks down into: 882 (16 percent) therapists, 1,273 (22 percent) pediatricians, 184 (3 percent) surgeons, and 521 (9 percent) obstetricians and gynecologists. The preparation of general practitioners in Tajikistan was initiated in 1998 with the opening of a Family Medicine chair in the Tajik Institute for Post-Graduate Medical Education. This was followed by the establishment of Family Medicine chairs in the Tajik State Medical University named Avicenna and Dushanbe Medical College (Hoffman, 2003). Despite these developments, the total number of staff trained in family medicine remains limited, and it will take many years before family medicine specialists are able to fill most of the primary care positions.

92. Low pay and poor working conditions lead to high turnover rate and difficulties in retaining qualified health workers to assure a minimal standard of care in health facilities. According to the State Statistical Committee, in 2002 the average monthly salary for health sector workers was 12.8 Somoni (about US\$3), compared with the workforce average of 31.2 Somoni (about US\$10). It is also commonly known that in order to augment their meager salaries, many of the staff positions in the system are left deliberately vacant and salaries for these "ghost" workers are shared among the incumbent staff. Access to informal payments and future government pension are other possible factors influencing the retention of some staff. It is also possible that the official statistics may be underestimating the total number of incumbent health workers in the system. The Government is currently considering a significant increase in the salary levels of health workers. In hospitals and specialized facilities which have introduced "self-sustaining" units, they are able to generate additional revenues from fee for services charged to patients

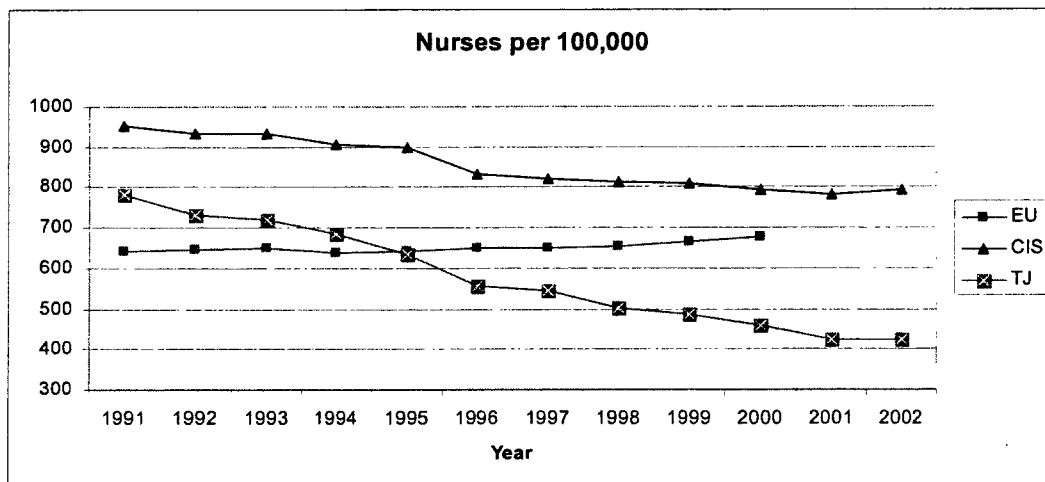
and augment the salaries of the staff. These appear to be helping with the retention of qualified staff in urban centers such as Dushanbe. The problem of inadequate salaries remains acute at the primary care levels and in remote rural regions where health workers do not have such opportunities to augment their income with additional revenues. For these reasons, salaries for these categories of workers will likely require additional compensations.

**Figure 7: Number of Physicians per 100,000 Population, 1991-2001**



Source: WHO Health for All data for EU and CIS, and Ministry of Health for Tajikistan.

**Figure 8: Number of Nurses per 100,000 Population, 1991-2001**



Source: WHO Health for All data for EU and CIS, and Ministry of Health for Tajikistan.

## F. Role of the Private Sector

93. Private health services remains undeveloped in Tajikistan, although legislation regulating the order of private practice is in place. According to the law of the Republic of Tajikistan "On State Property Privatization" (1995) which regulates the process of privatization, health facilities are included in the list of establishments which could be privatized, subject to the decision of the Government of

Tajikistan, but SES facilities are not allowed to be privatized<sup>28</sup>. At present, privatization of the health system is limited mainly to the pharmaceutical sector and rehabilitation centers. Some entities responsible for the repair and maintenance of medical equipment are also being privatized.

94. A number of “self-sustaining” units have been established in the existing government hospitals and dispensaries that allow these entities to charge fee for service to their patients. These fees are regulated and income generated from these revenues is used to subsidize salaries and operating expenses. Most of the large Republican and City hospitals are maintaining their operation through this cross subsidization. In principle, these facilities are required to provide health services free-of-charge for patients transferred by the Ministry of Health, but it is not known how effective the system is functioning to protect access for the poor who are unable to pay for hospitalization. There is a danger that such a system could evolve into a two tiered system, which would exacerbate the growing inequities in the health system. Therefore the Ministry of Health must pay close attention to ensuring fair access to these government health facilities for those in the low income groups.

### **G. Public Health Functions**

95. The Ministry of Health departments and Republican Centers have responsibilities for public health functions pursuant to the 1997 Health Protection Law. Other national agencies that have responsibility for public health policies and programs include the Ministry of Agriculture, Ministry of Irrigation and Water Supply, Ministry of Environment, the Republican Center for Healthy Lifestyles (established in 1999), and a National Inter-Agency Coordinating Committee. With the proliferation of new disease-specific and program-specific Republican Centers, the need for clarity in roles and responsibilities among the different centers is becoming acute.

96. Lack of resources has severely curtailed the ability of the MOH to administer its public health functions and there clearly is a need for clarity in roles and responsibilities among the public departments and agencies and for linkages among and between departments that have comparable responsibilities, whose current unclear and duplicative roles are not clear, thus reducing opportunity for efficiencies and effective programs and interventions. The increase in new, vertical initiatives in response to addressing emerging problems (or to address MDGs, such as those related to HIV/AIDS and infectious diseases) are only minimally coordinated. Moreover, lack of clarity with respect to roles and responsibilities of public offices with comparable responsibilities is a barrier to effective policy and program implementation. For example, although there is informal coordination between the Republican Sanitary Epidemiological Surveillance Center and the Preventive Medicine Research Institute, there are no structural mechanisms for such coordination, resulting in both some degree of both duplication and the possibility that key functions are not addressed.

97. The Sanitary and Epidemiological Services (SES), which has responsibility for organizing health protection measures throughout the country has had its staffing levels cut by nearly 60 percent between 1990 and 2000, and laboratories are lacking equipment and supplies.<sup>29</sup> This is of great concern given the urgent need to ensure that Tajikistan has adequate laboratory facilities to carry out fundamental public health detection, screening functions and quality assurance of drugs. In one rayon, there have been extensive violations of regulations regarding discharge of solid waste into waterways in the area, and the local SES staff have attempted to enforce the regulations, including imposing fines, but the violators continue to discharge the solid waste knowing that SES has not resources to enforce the regulations.<sup>30</sup>

98. The Government is currently reviewing a proposal to increase the staffing under SES and to enable SES to charge fees for licensing and other functions to augment their budget. The Government should be strongly cautioned against the introduction of fees to SES, as the experience in the region has

<sup>28</sup> Decree of the Republic of Tajikistan N 338 of 28 August, 1997 “On Privatization of the State Property”.

<sup>29</sup> Michael Mira, 2002, p. 66

<sup>30</sup> Interview with Chief Doctor of Rayon, February 2004, quoted in Jillson, 2004.

shown that this could lead to perverse incentives on the part of SES to generate additional revenues. For example, the Kyrgyz Republic has recently abolished the licensing fees charged by SES, and proposes to replace this revenue with increased budget allocation from the general revenues.

## **H. Community Participation in Health**

99. In Tajikistan, social participation in health is explicitly articulated as one of the five primary objectives of the Government's Health Reform Program. Specifically, the Program recommends that the population "should be actively involved in planning, operations, and supervision pertaining to medical and sanitary aid using local and other resources and opportunities" and that "measures providing comprehensive, precise, and timely information of issues with respect to health, medical and sanitary aid through various information channels should be developed."<sup>31</sup>

100. The mechanism of involving community in the organization of the local health system has not yet been established. Coordination by local *hukumats* with local NGOs helps to increase engagement of the population in health care issues. The Community Councils (*mahalla*) at the village, rayon and city level play a role in mobilizing communities. But these are not regular systems and their effectiveness appears to be limited.<sup>32</sup>

101. To address this issue, a survey on community-based health programs in Tajikistan conducted for the World Bank by the Aga Khan Foundation (AKF) found that some 23 international and 84 national NGOs support community-based health projects in the country (Aga Khan Foundation, 2004). The role of local non-governmental organizations in health and social services appears to be gradually expanding in Tajikistan since 1992.

102. The majority of the community health programs identified in the survey indicated increasing community knowledge and awareness of health and nutrition issues as the most common objective. Approximately half of the NGOs also cited improving the quality of and access to health services as a primary objective. Children and women of child-bearing age were the primary target population for most NGOs. Reproductive health activities, including the provision of clinical consultations, contraceptives and educational sessions on health promotion and HIV/AIDS prevention activities were also being carried out by more than half of the NGOs. Most communities provided members to act as community health promoters or volunteers, after appropriate training by the NGO. Health workers, community or religious leaders, and women were reported to be the most actively involved community members in the design and implementation of these projects.

103. Lack of trust in the Government was cited as one of the main barriers to community participation. Other barriers to community engagement included poverty (either of communities themselves or the reported lack of sufficient funding of NGOs) and traditional beliefs and conservative leaders who resisted change. A number of respondents noted that rural communities are generally more open and responsive than urban communities. Several national NGOs reported that a lack of knowledge/low educational attainment were impediments, although two international NGOs cited high literacy and educational attainment levels as facilitating factors. These findings point to both the fragile nature of community health activities in Tajikistan and potential opportunities that exist to harness these emerging programs to address the health problems of the community.

<sup>31</sup> Republic of Tajikistan. (2002). Program of Urgent Arrangements to Improve Public Governance in the Health Sector of the Country Ensuring Implementation of Constitutional Rights of Citizens Relating to Health Care

<sup>32</sup> Conception on Health Reform in Tajikistan, 2002.

## **VII. GOVERNMENT POLICIES FOR THE HEALTH SECTOR**

### **A. Poverty Reduction Strategy and Millenium Development Goals (2005-2015)**

104. Investing in people's health is an essential component of the country's strategy to reduce poverty and achieve sustainable growth. Poor health outcomes are both a symptom of, and a contributing factor to, the country's widespread poverty. Ill-health lowers the productivity of the working population and reduces the learning capacities of children; catastrophic illnesses and injuries drain the families' savings and resources, and entrap them in a cycle of poverty. The Tajikistan Poverty Reduction Strategy Paper (2002) reflects this concern and identifies health as one of the priority sectors for the Government's medium-term investments and reform agenda:

“The strategy in the health sector is to concentrate efforts on expansion and improvement of primary health care, including the quality of services, which should increase access to medical care for the poor as well as the population generally. The Government will also specifically address the question of affordability of services in relation to the current system of informal payments for treatment. Priority will be given to strengthening public health services, notably the immunization program. Finally, to better understand the health care needs of the poor, efforts to improve medical statistics will also gather information on disease incidence among the poor groups.” (PRSP 2002).

105. The PRSP adopts the international Millennium Development Goals for its medium-term strategy. The MDGs related to the health sector include the following targets the years covering 1990- 2015: (i) halve the incidence of hunger and reduce acute child malnutrition; (ii) reduce under-five mortality rate by two thirds; (iii) reduce maternal mortality ratio by three quarters; (iv) halt and reverse the spread of HIV/AIDS; and (v) reduce the spread of malaria and TB and other major infectious diseases. Table 22 presents the current status of the Millennium Development Goals (MDGs) that relate to the health indicators for Tajikistan.



Table 22: Millennium Development Goals in Tajikistan: Current Status

| Target  | Measure  | Current Data/Information  | Comments   |
|---|--|---|--|
| MDG 1: Eradicate Extreme Poverty and Hunger   |  |   |  |
| Target 2: Halve by 2015 the proportion of people who suffer from hunger   | Per capita annual consumption of food items      | Significant decline between 1992 and 2002.  | Tajikistan is a food-deficit country and the food supply situation is critically strained.   |
|   | Malnutrition, % of 6 mos-5 yrs underweight       | National Nutrition Survey: 4.9 percent (2002)   |  |
| MDG 4: Reduce Child Mortality   |  |   |  |
| Target 5: Reduce under-five mortality rate by two-thirds, between 1990 and 2015   | Infant mortality rate per 1,000 live births      | Official government statistics: 27.9 (2003)<br>TLSS 1999: 78 (1994-98)<br>DS 2002: 84 (1997-2001)                               | Likely not achievable according to recent MDG progress report. Data reliability is a major issue.  |
|   | Under-5 mortality rate per 1,000 live births     | MICS, 2000: 126/1,000 live births   | Likely not achievable according to recent MDG progress report. Data reliability is a major issue.  |
| MDG 5: Improve Maternal Health  |  |   |  |
| Target 6: Reduce the maternal mortality ratio by three quarters by 2015   | Maternal mortality ratio per 100,000 live births | Official government statistics for 2002: 50<br>Hill et al for 1996: 123   | Likely not achievable according to recent MDG progress report. Data reliability is a major issue.  |
| MDG 6: Combat HIV/AIDS, malaria and other diseases  |  |   |  |
| Target 7: Have halted by 2015, and begun to reverse, the spread of HIV/AIDS   | # registered HIV cases                           | Officially registered: 119 cases as of December 2003  | Actual rate estimated at 10 to 20 times higher than official rate  |
| Target 8: Have halted and begun to reverse, by 2015, the incidence of malaria and other diseases and reduce morbidity rates | # registered malaria cases (by type)             | Officially registered: 6,160 cases in 2002.<br>WHO estimate: 300,000-400,000 for P. vivax and 30-50,000 for P. falciparum cases | Formerly eradicated, now endemic. Target not likely to be met without significant investment in malaria control activities   |
|   | Tuberculosis case rate                           | Official statistics: 64/100,000 in 2002   | Official rates doubled from 1996-2002. DOTS program introduced in 2002.  |
|   | Typhoid case rate                                | 52.2/100,000 in 2002  | Incidence of some water-borne diseases (typhoid, dysentery, and hepatitis) decreased 1997-2002, but diarrhea increased. The water supply is seriously compromised. |
|   | Dysentery case rate                              | 35.4/100,000 in 2002  |  |
|   | Diarrhea case rate                               | 1045.6/100,000 in 2002  |  |
|   | Hepatitis case rate                              | 130.3/100,000 in 2002   |  |
|   | Anthrax case rate                                | 2.6/100,000 in 2002   |  |
|   | Brucellosis case rate                            | 17.9/100,000 in 2002  |  |

Source: Office of the President, Republic of Tajikistan (2003). Progress Toward the Millennium Development Goals. Dushanbe.

**B. Health Reform Strategy in the context of PRSP**

106. In conjunction with the PRSP, the Government has developed a concept paper on health reform<sup>33</sup> which proposes a comprehensive national strategy to achieve the health objectives of the PRSP. The concept is based on the principles of ensuring equal access to health services and meeting the needs of the poor, and offers a framework for allocation of health resource according to the needs of the population. It broadly identifies the following strategies for reform: (i) strengthen the role of primary care services by expanding the role of family physicians and nurses who would ensure that the majority of the health services needs of the people would be managed at this level; (ii) rationalize hospital and specialist services to reduce the use of services at this level and shift the savings to the primary care level; (iii) improve quality of health care by updating clinical practices and promoting a more integrated and team approach to care, upgrading the quality of medical education and training programs to reflect the new requirements of the sector including management capacity, and assuring the quality, efficient distribution, and rational use of pharmaceuticals; (iv) introduce new mechanisms for financing of health services based on population and activities in lieu of the Soviet normative budget process; (v) reform of sanitary epidemiological services to enhance their public health functions, with priority given to immunization; (vi) encourage community participation and citizen's responsibilities in managing their own health; and (vii) improve the quality of health statistics and information systems to identify the needs of the poor and to inform and evaluate the impact of policy and management decisions.

**C. Linkage to the Public Investment Plan and Medium Term Budget Framework**

107. In the PRSP, the Government has indicated its commitment to increasing the share of budget allocated to health to support the reform agenda described generally in the Health Reform Concept. But these broad policies and strategies have yet to be translated into specific investment plans and medium-term budget requirements. At present, the Public Investment Plan remains largely a list of investment proposals that do not yet prioritize the sector needs in accordance with the health reform concept. For example, the Government's proposal to rationalize hospital services is not reflected in the Public Investment Plan. Rather, the current Plan includes a number of new investment programs for upgrading hospital medical technology which do not address the existing segmentation and inefficiencies in the hospital system. Any investment plan for new technologies should be preceded by a restructuring plan, which would identify the hospitals to be closed or integrated. In this regard, some progress has been made in developing a facilities rationalization and human resources development plan for expanding the primary care services in a number of pilot programs, but these plans now need to be evaluated and developed into a national implementation and investment plan. These investment plans should be closely linked with the recurrent budget requirements for staffing, operating expenses, pharmaceuticals and other critical inputs to provide the essential health services.

**D. Mobilizing External Assistance**

108. A major problem in monitoring the progress on the achievement of MDGs is the lack of consistent and reliable statistics to track these key indicators. But based on the available information, it is unlikely that Tajikistan would achieve all of its MDG health goals within the given timeframe. The country has already suffered serious setbacks during the decade of civil war and social turmoil, and its existing health system remains in a very precarious state. With only modest prospects for economic growth in the medium-term, the country would probably be unable to mobilize sufficient resources on its own to undertake the necessary investments and improvements in the health system to reverse these trends.

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<sup>33</sup> Conception on Health Reform for the Republic of Tajikistan, 2002.

**E. Redefining the Role of the State**

109. Under the Soviet regime, the citizens were guaranteed access to comprehensive health care services provided free-of-charge by the State, but with the collapse of the public revenues, the state has been unable to dispense with this obligation. According to a new Constitutional amendment passed in 2003, the Government is no longer under obligation to provide free health care. This step represents a major break with the past, and not only enables the Government to begin implementing the proposed reform measures, but fundamentally changes the relationship between the state and its citizens. By sharing in the cost and maintenance of their own health care, the individuals and their communities become equal partners with the state in the health system.

**VIII. RECOMMENDATIONS FOR HEALTH REFORM IN THE CONTEXT OF POVERTY REDUCTION STRATEGY**

110. The Government policies reflected in the Poverty Reduction Strategy Paper and the Health Reform Concept documents provide a framework for reform. While the government is committed to significantly increasing public spending on health, the scope for such increases remains limited in the medium term. The Government policy is focused on making the sources and uses of the health budget more transparent by introducing formal co-payments on the part of the households, by defining a Program of State Guaranteed services to prioritize health care with available resources, and by introducing population-based health budget allocation to ensure a more equitable and needs-based allocation of public resources.

111. These reform initiatives form the core activities addressed at the National Conference for Health Reform in the Context of the Tajikistan Poverty Reduction Strategy. It is clear that many of the proposed reform measures would require a medium- to long-term time frame for implementation. But in the short-term, while establishing the foundation and developing plans for the longer-term institutional changes and human resource capacity building, the country faces many urgent public health needs that cannot wait. Therefore, two sets of recommendations are presented: first, to describe a short-term strategy to meet Tajikistan's more immediate needs in the next few years, and second, a medium- to long-term strategy directed at the systemic reforms needed to develop a more effective, equitable and sustainable health system for Tajikistan.

**A. Short-Term Strategy (3 Year Time Frame)**

112. It is evident that in the short-term the Government of Tajikistan will not be able to mobilize sufficient resources on its own to finance the basic health services to address the urgent public health needs of the population. Under the Program of State Guaranteed Package, the Government proposes to finance from the state budget, within the limits of affordability, the priority health interventions consistent with the Poverty Reduction Strategy; the scope of the package would depend on the level of donor contribution which could be mobilized to provide complementary financing for the essential health package. In the short-term the package would necessarily be minimal in scope, and would focus on the priorities identified in the Poverty Reduction Strategy, including basic maternal and child health services and prevention and control of TB, HIV/AIDS and malaria. The short-term approach would essentially build upon the existing arrangements with the donor agencies which have been providing direct support for drugs, medical supplies and services primarily in the context of a humanitarian assistance, but would begin to integrate these programs into the national health system rather than deliver them through separate and parallel delivery structure.

113. Specific actions to be taken under the short-term strategy would include the following: (a) identification of the Essential Drugs Package which would be funded through a well-coordinated donor funding mechanism, and supported by local capacity to procure and distribute drugs; (b) targeted training of primary care physicians and nurses in the relevant clinical protocols associated with the essential health

services, which would eventually develop into a full training program in family medicine; (c) coordination of the capacity building activities among the vertical programs; (d) for health interventions that are not covered by the state or require co-payments, expanding support to community financing as an interim measure to extend social protection for the vulnerable groups; and (e) significant increase in resources and support allocated for health promotion and community health activities that are designed to empower families and communities to make a more effective use of their limited resources in order to reduce risks and improve their health status. Such community-based actions could be complemented by selective use of national campaigns to expand the impact of critical interventions, such as information on prevention of HIV/AIDS and measles immunization.

## **B. Medium- and Long-term Strategy (5 – 10 Year Time Frame)**

### **1. Implications of the Health Finance Reform Strategy**

114. The proposed Tajikistan health care financing strategy can be assessed in terms of the four health care financing functions: revenue generation, pooling of health care funds, budget formation, and purchasing of health care services. This section summarizes the rationale underlying the main principles articulated in the Tajikistan health financing strategy.

#### **(i). Revenue Generation and Financing**

115. The strategy for revenue generation should focus on ensuring that the mechanisms in place are not regressive, that they are administratively simple and efficient (minimizing transaction cost and opportunities for gaming and leakage), and that they are comprehensive and take into account the totality of resources potentially available to the health sector, including the private sector and households and external donor assistance. Table 23 summarizes the health care spending levels in Tajikistan for 1999 and 2003.

116. *Increasing government budget allocation to health.* In the short- to medium term, Tajikistan would have the opportunity to increase the revenues to the sector from the general budget. At just 0.9 percent of GDP in 2003, the government spending on health in Tajikistan is among the lowest in the world even in comparison with the low income countries around the world. It would require a fairly rapid annual rate of increase in health budget to have any significant impact on the overall financing of health sector in Tajikistan. The Health Financing Strategy envisions reaching a 50:50 parity with private spending in a relatively short period. Table 24 offers one possible scenario in which such a parity might be reached. In this scenario, an annual 15 percent increase in health budget above the economic growth rate would bring the government spending level up to 2.4 percent of GDP, comparable to other low income countries. Assuming a relatively constant level of external assistance at 0.5 percent of GDP, one would expect the total “public” spending to be around 2.9 percent of GDP. This may bring the public spending to parity with private household spending if one also assumes a constant total health spending of 5.8 percent of GDP over the same period.

**Table 23: Health Spending Pattern in Tajikistan, 1999 and 2003**

| Year                                      | 1999   | 2003    |
|---|--------|---------|
| Per Capita GDP, US\$                      | \$171  | \$200   |
| Per Capita Total Health Expenditure, US\$ | \$7.40 | \$11.60 |
| Total Health Expenditure, as % GDP        | 4.3    | 5.8     |
| Government Health Expenditure, as % GDP   | 1.1    | 0.9     |
| Household Expenditure on Health, as % GDP | 2.9    | 4.1     |
| External Assistance, as % GDP             | 0.3    | 0.8     |

Source: Health expenditure data are from Cashin, 2004. There is considerable variability in the reported GDP data. The 1999 GDP estimate is taken from IMF (2004); the 2003 GDP figure is estimated from IMF 2004 data, using the assumption of 9 percent growth rate cited in the same report. The population data are taken from the State Statistical Commission, based on 2000 Census.

**Table 24: Actual and Projected Shifts in Health Spending Patterns in Tajikistan, 2003-2015**

| In Percent GDP           | 2003 (actual) | 2010 (projected) <sup>1</sup> | 2015 (projected) <sup>2</sup> |
|--------------------------|---------------|-------------------------------|-------------------------------|
| Total health expenditure | 5.8           | 5.8                           | 5.8                           |
| Government               | 0.9           | 2.4                           | 2.8                           |
| Private household        | 4.1           | 2.9                           | 2.5                           |
| External assistance      | 0.8           | 0.5                           | 0.5                           |

Notes:

1. Projection for 2003-2010 assumes a real annual increase in per capita government spending of 15 percent above the economic growth rate, and the level of external assistance which remains at a period average (1999-2003) of 0.5 percent of GDP. It is also assumed that total health expenditure would remain at 5.8 percent of GDP over this period, since this is already a very high level of health spending for a low income country and may reflect a significant underestimation of the total GDP in 2003.
2. Projection for 2011-2015 assumes a real annual increase in per capita government spending of 10 percent above economic growth rate and the level of external assistance remains at 0.5 percent of GDP.

117. These scenarios should be developed and analyzed further in the preparation of the Medium Term Budget Framework which should take into consideration the trade-offs with other priority sectors, the expected expenditures associated with the proposed Program of State Guarantee for essential health services, and projected contributions from the donor community. The Health Finance Strategy paper emphasizes the importance of linking any increase in budget with reforms that improve the quality and efficiency of services, and not be used merely to prolong the existing inefficient health delivery system (see below, under Budget Formation).

118. *Reducing the burden of household out-of-pocket spending on health.* Household out-of-pocket spending represented over 70 percent of the total health spending in 2003 inclusive of external financing. Even in comparison with other low income countries this represents a very high share of the health spending shouldered by the households. Direct out-of-pocket spending is a regressive form of resource mobilization, since the poor will usually end up having to spend a larger share of their income on health care than the wealthy. Secondly, it does not encourage the use of public goods such as preventive care or contribute to the funding of public health services that have high externalities. High dependence on household spending and very low public spending also means that very few resources are available for redistribution and for targeted support to the vulnerable groups. Finally, it exposes households to the financial risks of catastrophic illnesses or diseases, which may contribute to further impoverishment of the families who are forced to borrow or sell assets in order to pay for costly care.

119. In the short to medium-term, it is unlikely that social insurance or private insurance will play a significant role in the financing of health services (see below). For these reasons, the only significant

form of a risk pooling mechanism available to Tajik population would be through government budget financing. Increasing the public expenditures on health would effectively help to mitigate the problems associated with over-reliance on out-of-pocket spending, on the condition that these increases are directed towards more efficient services and more equitable distribution of resources.

120. In addition, the current pattern of out-of-pocket spending is directed towards inefficient use of health services and resources. By formalizing and rationalizing out-of-pocket payments through the introduction of co-payments and defining the Program of State Guarantee for essential health services, it is expected that the contributions by households will be made more transparent, and could be directed towards more effective forms of care.

121. *Improving Donor Coordination.* In the short- to medium-term, Tajikistan is expected to depend on external assistance for a significant share of revenues for the health sector. In the short and medium-term, the Government's ability to provide a free Program of State Guarantee for essential health services would depend greatly on the availability of donor support in these areas. Therefore, the design and scope of SGP would, for example, define the essential drugs needed to support the priority primary health care services, and the ability to provide these drugs free of charge or at a discounted rate would likely depend on the level of donor contribution to the sector.

122. Another area where donor coordination would be critical is in the Public Investment Plan (PIP). At the moment the programs in the PIP remains fragmented, and need to be reviewed and realigned with the investment priorities identified through a national health services restructuring plan. The PIP should be developed in close coordination with the relevant recurrent budget requirements for staffing, operating expenses, pharmaceuticals and other critical inputs for providing essential health services, and these should be reflected in the Medium Term Budget Framework.

123. *Social Health Insurance.* In the short- to medium-term, the development of new sources of revenues through a social health insurance is not likely to be a feasible or effective option for Tajikistan. Social insurance is not successful unless a set of pre-conditions are met (e.g. effective and fair tax collection system, capacity and mechanism for ensuring fair and adequate contributions from informal or self-employed sectors and non-working population). Experience from the former Soviet Union has shown that under current conditions of a weak tax collection system, and where large segments of the working population are in the agricultural or informal sectors, social insurance based on employer and employee payroll tax contributions is less effective. These conditions have not been met in any of CIS countries, and social health insurance has failed to increase the level of resources available for the health sector.

124. In a number of former socialist and communist countries, the introduction of social insurance was seen as a way to reduce the commitments of the national government to financing health care. Establishment of social insurance entities have in some cases led to increased opportunities for corruption, as social insurance funds have tended to be established as extra-budgetary funds with minimal or poorly defined oversight and accountability. Furthermore, the introduction of social health insurance has been associated with increase in transaction costs, which may not be affordable in very low income countries such as Tajikistan. For these reasons, it is not recommended that Tajikistan consider social insurance at this time.

125. *Private Medical Insurance.* It is highly unlikely that private voluntary insurance would become a significant source of revenues for the health sector in the near future, except for a very small group of formally employed workers. In most low income countries, private medical insurance typically generates less than one percent of the total revenues for the sector. Effective regulation of the private medical insurance market requires considerable institutional capacity and usually entails high transaction costs.

(ii). Pooling and Consolidation of Financing at Oblast Level

126. Health care funds in Tajikistan are budgeted in a fragmented way at the oblast, rayon and jomoat levels. The sources of public funds for health care are extremely fragmented down to the jomoat level, and there is a mismatch between budgeting decisions and management decisions. For example, in Varzob rayon the Central Rayon Hospital (CRH) finances all health care facilities that are identified as hospitals, whereas the jomoats directly finance all medical houses and rural health clinics. The CRH, however, is responsible for administrative and clinical oversight of the primary health care (PHC) facilities, which means that the CRH makes staffing decisions for PHC facilities. Moreover, the jomoat is responsible for financing the salaries of other categories of staff not included under the PHC facilities.

127. The result of the fragmented budgeting is significant inequalities in the resources available by geographic distribution and by levels of health care. This poses a major obstacle to rationalization of services across different administrative units and levels of care, including the proposed redirection of resources to public health and primary health care sector. The fragmentation of health care budgets and the in-kind contributions of local governments make it exceedingly difficult to track and monitor the total resources allocated to the health sector, and this lack of transparency limits the effective. For these reasons, pooling of health care funds at a level higher than the rayon or jomoat is an important element of the health financing strategy. At the Republican level, it would only be necessary to support the tertiary level services with research and teaching functions, and for supporting policy, planning and regulatory systems.

(a) Risk-pooling and financial risk protection. Consolidation of budgets at the oblast level is necessary to organize funds for a population that is sufficiently large and diverse in terms of health risks to ensure adequate risk pooling. For example, revenues from the wealthier (and healthier) urban areas currently are not adequately pooled with revenues from the poorer rural areas, resulting in inequity and inadequate financial risk protection for rural populations.

(b) Aligning health financing system with the restructuring of the health care delivery system. Currently in Tajikistan, health care delivery systems (including primary care, hospitals, specialty dispensaries and Sanitary Epidemiological Services) exist as parallel systems at the level of the rayon, city, and oblast. In the current system with health care budgets at each administrative level, if hospital rationalization is achieved, there is no mechanism to reinvest the savings in other parts of the health care system, and the budget would leave the health sector. For example, if oblast and city hospitals are consolidated in an oblast center, there is no mechanism to shift the savings to invest in rural primary care, since they are organized and financed under a parallel and separate budget structure. There is therefore no incentive for oblasts to downsize the hospital sector. If health care funds are pooled at the oblast level, savings from rationalization can be reinvested in other parts of the health care system in the oblast. Furthermore, to achieve optimal efficiency and quality of care, investments in certain components of health services require economies of scale and scope that cannot be achieved within the existing fragmented financing system.

(c) Ensuring adequate provision of public goods such as public health activities and services. Provision of effective public health activities and services require concerted action across administrative units and across different sectoral programs. Thus, health care budgets at the lowest administrative level are unable to take advantage of economies of scale in the provision of public goods in the health sector.

(iii). Budget Formation

128. Two principles underlie the proposed changes in the process of health budget formation: the first is to achieve greater equity across geographic regions and population groups; the second is to move from

historical input-based budgets towards transparent allocation principles that are based on objective and transparent criteria for service requirements. The provision of a defined benefits package under the “Program of State Guarantee for essential health services ” would help to relate budgets with explicit service outputs, rather than merely to increase the financing of inputs such as salaries without due consideration to benefits gained from the increased budget. For example, the SGP currently under review is expected to focus on prevention and primary care services to reduce the burden of disease on the most vulnerable groups, including infants, children and mothers.

129. The structure of the budget should reflect the functions and levels of health care services (outputs) rather than inputs. For this purpose, the introduction of the functional and provider classification defined in the National Health Account<sup>34</sup> would help to begin moving the budget structure and classifications in that direction.

130. Achieving a more equitable distribution of budget and resources across geographic areas will take time, since this will require concurrent investments in human resource and infrastructure development. Specifically, this would require intensive investments in human resources and physical infrastructure in the primary care sector to replace the old and deteriorating Soviet system with a new network of health care providers organized around the principles of family medicine and modern evidence-based clinical practices; and investments in the hospital sector to achieve vertical and horizontal integration of the facilities at the oblast, city and rayon levels and consolidation of specialized tertiary care services at the national level. On the other hand, investments in well-targeted public health programs and health promotion and prevention activities at the community levels are expected to yield results within the limited time and resources.

131. There are two complementary strategies in which this process could be pursued. The first is to develop an explicit restructuring program for the health delivery system in the medium-term Public Investment Plan which would introduce the reforms from the supply side. Thus the reallocation of recurrent budgets in the Medium Term Budget Framework would follow the restructuring of the delivery system. The second option is to improve the availability of financial resources and allow the changes in the financial resources at the local levels to drive the restructuring of the health delivery system. The second option assumes autonomy and capacity on the part of health care providers to respond to the new financial incentives. In the Tajik context, a more realistic approach would be a well-coordinated and concurrent implementation of both approaches, which should be reflected in the Medium-Term Budget Framework.

(iv). Management of Decentralized Health Funds and Strengthening Provider Incentives

132. The health financing strategy should create the conditions for new provider payment systems that establish the appropriate incentives for efficiency and quality, allow for increased provider autonomy, and pay for services rather than facilities and inputs. These conditions include: pooling of funds at the oblast level, and the gradual creation of a purchasing function at the oblast level, removing obstacles to provider autonomy. The transformation of the existing input -driven system towards a more flexible payment system will require a very long period of reform. It is likely that the initial phases of this reform would involve incremental steps towards global budgeting, with increasingly refined definition of performance indicators by facilities. Parallel capacity building activities will be needed to strengthen management capacities, enhanced information and reporting systems to monitor and evaluate the financial and clinical

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<sup>34</sup> For the definition and guidelines the preparation of a National Health Accounts, see Guide to Producing National Health Accounts – with Special Applications for Low-Income and Middle-Income Countries. WHO, World Bank and USAID, 2003.



performance of the facilities. This would need to be supported by legislative reforms to introduce greater autonomy at the provider level or, alternatively, contracting with nongovernmental health care providers.

133. Out-of-pocket expenditures in poor communities should increasingly be channeled into "community financing" schemes to help cover the costs of community-based health delivery. These prepayments by the community would cover basic health services other than the package of essential health services which are covered by the budget, with donor support. By empowering the local community to pool its resources, and to provide community oversight of the health service delivery, it could offer a degree of risk spreading, so that households would not face financial catastrophe in the event of an adverse health event.

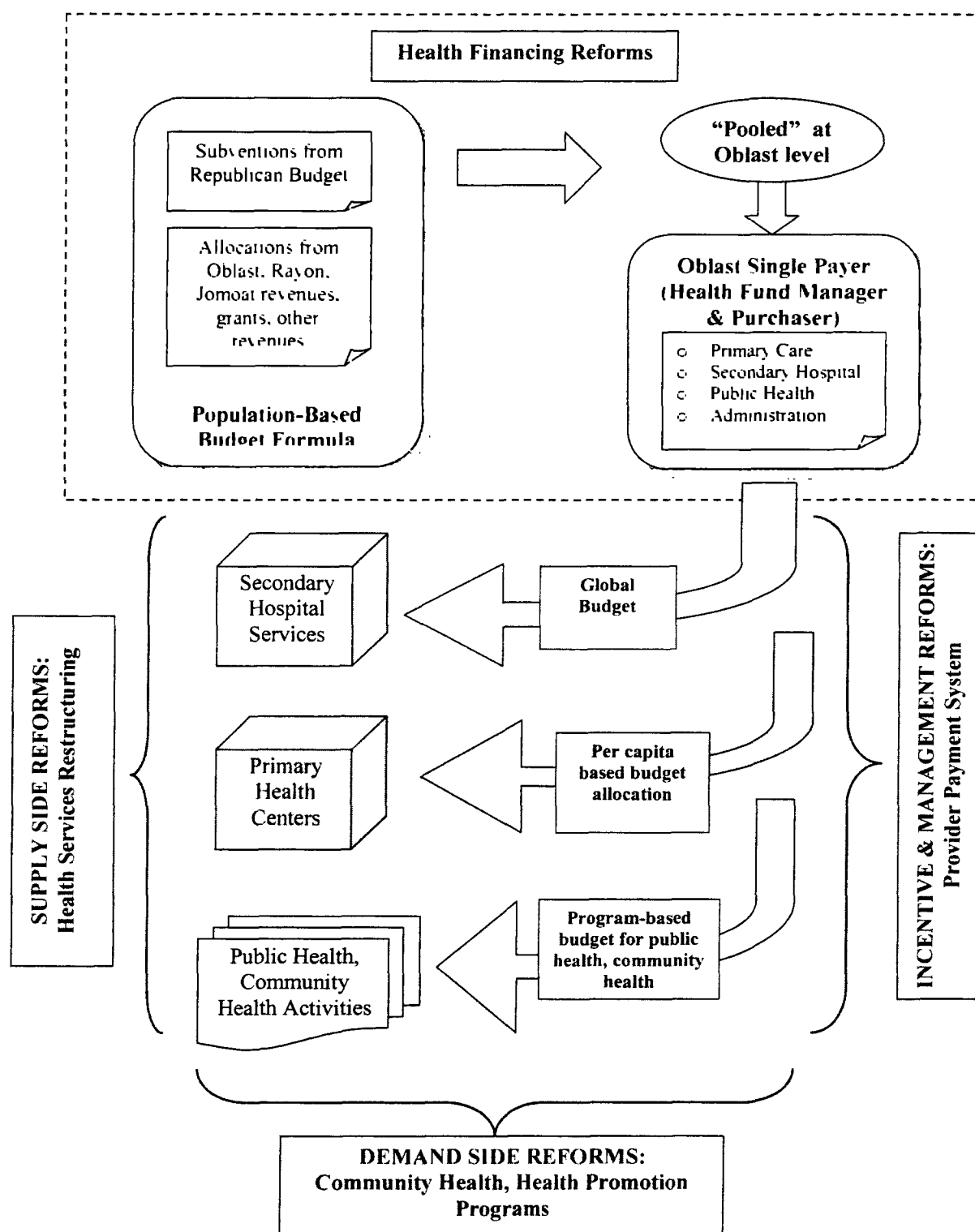
## **2. Restructuring the Health Delivery System**

### **(i). Investing the Primary Health Care System and the expansion of Family Medicine.**

134. A centerpiece of the Government's health reform program is the expansion of the primary health care system based on the principles of family medicine and practice. The aim is to shift an increasing share of health care responsibilities to the primary level and away from specialist and hospital services, and thereby achieve both cost savings and improved quality and access to health care for the population. Specific actions needed to support this process are outlined below:

- a. An expansion of the family medicine training and education program to increase the number of qualified family health physicians and nurses to staff the reformed primary health care facilities. A major bottleneck in the implementation of the new primary care model will be the rate at which family physicians and family nurses can be trained to fill the posts. The low salaries and poor working conditions of the primary care workers is a discouragement to new entrants to the medical profession. The expansion of the training program will need to be accompanied by a significant increase in the remuneration of the primary care providers, and linked with the volume and quality of care.
- b. The current training program for family physicians and family nurses are focused on clinical practices. To be effective, they will need additional training in organizing effective outreach programs and engaging the communities and families in health promotion and preventive activities.
- c. The Primary Health Care Rationalization Plan for the pilot rayons should be evaluated and translated into a national implementation plan. The plan would include cost estimates for investing in primary care facilities and equipment and staffing requirements. In the rural areas this would result in the establishment of Rural Family Health Centers in place of SUBs, SVAs and FAPs, and in urban areas, urban family health centers would replace the former polyclinics and dispensaries. The Plan should also be closely coordinated with the hospital restructuring plan to ensure a continuous and effective system of referrals between the different levels of care.
- d. There is a need to define the role of the specialists who are currently located in ambulatory facilities, such as polyclinics and dispensaries, in the future reformed health system. They may have the option of either integrating into hospital outpatient department or become a family medicine specialist and serve in that capacity at the primary care level.

Figure 9: Tajikistan Health Finance Reform – A Schematic Diagram



(ii). Restructuring the Hospital Sector

135. Since a large share of the recurrent budget on the existing health system is spent on maintaining the existing inefficient hospital sector, it would be important to move forward with the hospital restructuring program as soon as possible in order to release the funds that are tied up in maintaining these costly facilities. Unless these restructuring plans are introduced, there is also a likelihood that the additional resources from the increase in public budget would be used to perpetuate the existing inefficient infrastructure and staffing structure. Priority attention should be given to ensuring good access to first referral inpatient and diagnostic services for the priority cases referred from the primary health care services. This would require consolidation of a number of oblast, city and rayon hospitals into a new general secondary hospital network which would be organized at the Oblast level, but with strong links with the primary health care network organized at the rayon level.

136. At the tertiary care level, the hospital restructuring plan will likely involve consolidation of a number of highly segmented specialized departments and facilities into a fewer number of specialized facilities. These restructuring plans should be accompanied by changes in the hospital financing system to encourage the hospital management to reorganize. Any new investments in medical technology at the tertiary care level in medical technology or expansion of the hospital services should be subject to rigorous assessment that takes into account the safety, affordability and cost-effectiveness of the new investments.

### **3. Ensuring a More Effective Service Delivery for the Poor Through Better Integration of Public Health, Personal Health Care and Community Health Approaches**

137. While the Health Reform concept paper exhorts a more integrated approach to addressing the health problems in Tajikistan, the current program of activities continues to reflect a segmented approach to the health system. In prioritizing the services to be financed by the state under the Program of State Guarantees, the Government should consider a balanced and integrated approach that combines family health, community-based programs, and public health activities that fall outside the traditional boundaries of the health system.<sup>35</sup> Such an approach would be essential in ensuring the most effective use of the country's limited resources, and especially in addressing the underlying social and behavioral issues associated with many of the priority health problems (such as HIV/AIDS and STIs). For example, the Integrated Management of Child Illnesses involves coordinated actions between home-based interventions by the mothers and the clinic-based intervention by the health care providers. Other interventions may require community action, such as removing stagnant waters and maintaining cleanliness around the village wells to reduce the community's exposure to infectious diseases.

138. *Coordinating vertical public health programs and primary care services.* While the Government should be commended for initiating a number of appropriate public health initiatives aimed at meeting the Millennium Development Goals, many of these initiatives are being implemented as vertical programs with little coordination with each other. Given the limited capacity to deliver services in terms of human and physical resources, Tajikistan cannot afford to build costly parallel or duplicate delivery structures for the different programs. From the perspective of the patients, the segmentation of services also represents another potential barrier to health services, as they may be required to visit different facilities for different health problems. It would also be difficult for the care providers to develop a full understanding of their patients' health condition, since the clinical records would be fragmented and limited to only a narrow view of the patient's health. Therefore, the different health programs should eventually be integrated into the family medicine services, where appropriate, or the information should at least be made available to the primary care provider to ensure continuity of care from the patient's perspective.

<sup>35</sup> This framework on integrated approach to health services is described in Chapter 4 in The World Development Report, 2004.

139. *Integrating Nutrition and Micronutrient Programs into Community Health and Primary Care Services.* Malnutrition is both an important outcome and cause of poverty, and should be given due attention in the implementation of the Poverty Reduction Strategy. One of the key recommendations of the health reform program is to integrate nutrition interventions into the primary health care services and community health programs, and to improve targeted assistance to those communities with the most vulnerable population where nutrition and micronutrient interventions could have maximum impact on preventing malnutrition and improving the health outcomes of the population. Micronutrient supplementation programs (vitamin A and iron) and iodization of salt are national programs to address micronutrient malnutrition. These programs need to attain and maintain high coverage rates (>85% of vulnerable groups covered) to reduce high prevalence rates. Much of the poor nutritional status in Tajikistan can be attributed to a lack of knowledge of appropriate feeding practices rather than to a lack of food. More attention to nutrition education and encouraging appropriate practices could have a positive impact on nutrition, for example, in increasing consumption of dark green vegetables and diversifying the diet and promoting breastfeeding. Breastfeeding promotion also is a national program which needs to be integrated more fully into efforts to improve all infant and young child feeding including the timely introduction and adequate feeding of complementary foods.

140. *Promoting Community Participation in Health.* While Tajikistan is expected to see a modest but stable economic growth in the medium term, it may take years before the benefits of the health reforms, such as upgrading the qualifications of the health workers and investing in new health infrastructure, can be realized at all levels. In the short- and medium-term, opportunities exist to empower families and communities to take steps that would help them prevent illnesses and promote their own health even in the absence of effective health services. Better knowledge and appropriate practices could reduce the risks of ill-health and mitigate some of the consequences of ill-health in a number of areas, such as in through appropriate child care and feeding practices, rational and safe use of pharmaceuticals, more effective family planning and practice of safe sex, and prevention and management of chronic diseases. The relatively high literacy rates and educational levels of Tajik men and women are an advantage and increase the likelihood of achieving positive changes in knowledge, attitude and practice through health promotion and health education programs.

141. The Integrated Management of Childhood Illnesses (IMCI) is a program developed by UNICEF and WHO that combines strategies for control and treatment of five major killers of children – acute lower respiratory tract infections, diarrhea dehydration, measles, malaria, and malnutrition. The program focuses on the improvement of case management skills by health workers, improvement of the health system, and improvement of family and community practices in the prevention and early management of childhood illnesses. Appropriate home management of illness is a critical component of IMCI. The approach teaches mothers that appropriate home management of diarrhea or any other illness requires giving more fluids and continuing to feed sick children as they are normally fed. This program represents a good example of how the combination of clinical and home-based services is necessary for improving appropriate care and ensuring better health outcomes. Integration of concepts of IMCI into family medicine training and into community-based health programs –as part of strengthening both primary care and public health programs will make effective use of this important strategy to address priority MDGs for Tajikistan.

142. While the Government policies and programs are geared towards the achievement of the Millennium Development Goals, it is evident that the needs of a number of vulnerable groups are not adequately addressed in the current program. These include the care of the elderly, and the physically disabled and those who suffer from some form of psychological conditions. The health problems faced by these groups are likely to be under-reported and the extent of the problems and their burden on the households hidden from view. To the extent that these issues can be managed at the community and primary care level, the health workers and community members should be given information and knowledge to address these problems at their level. For example, chronic conditions caused by

cardiovascular diseases or diabetes could be prevented and managed at the primary care level and through better diet and lifestyle adjustments, if diagnosed early. Rehabilitation services for the physically disabled are costly and may not be feasible within the available resources.

143. In a related area, addressing the problems of alcohol and drug abuse will likely become an increasingly important aspect of health and social service. These behaviors are also associated with intravenous drug use and other risky behavior, and may lead to other serious health problems such as HIV/AIDS, TB and STIs. The potential breakdown in social system due to labor migration and drug trafficking will likely lead to increased problems in these areas, for which the social services, including health care, will need to be prepared to address through psychological counseling, treatment and social services.

144. The participation of families and communities should also be an essential part of the health reform process in order to foster greater accountability and transparency in the overall process by all the stakeholders, ensure the benefits from the health reform activities are reaching the communities, and mitigate any adverse effects on the vulnerable population.

145. *Improving Coordination Between Health, Water and Sanitation Programs.* Lack of access to safe drinking water and sanitation systems, including the breakdown of the irrigation systems, is a major contributing factor to the high incidence of communicable diseases in Tajikistan. While it may take years for the reconstruction of the basic water and sanitation infrastructure, communities and households should be encouraged to mitigate these potential environmental problems, for example, by removing stagnant waters, maintaining cleanliness around the village wells, and other actions which could reduce their exposure to infectious diseases.

#### **4. Improving Transparency Accountability at all Levels of the Health System by Promoting a Participatory Monitoring and Evaluation Process.**

146. Tajikistan suffers from lack of accurate or consistent information on critical aspects of the health system and health outcomes. Although a number of national surveys are beginning to reveal the magnitude of the health problems in the country, these are costly undertakings and require substantial external assistance on a regular basis to generate the necessary information. The Government is beginning to take steps to introduce international standards and definitions on the key indicators related to health, but this will need to be accompanied by investments in the health management information systems that would be able to generate timely and accurate data on health systems performance.

147. The participation of the communities as well as the health care providers in the monitoring and evaluation process should be an essential part of the health reform process in order to foster greater accountability and transparency in the system, ensure that the benefits from the health reform activities are reaching the communities, and mitigate any adverse effects on the vulnerable population. Participation of the key stakeholders in the design and implementation of the health information collection and analysis would improve the likelihood of obtaining more accurate and useful information.

Table 25: Short-Term Action Plan for the Implementation of the Health Reform Program

| Action   | Time Frame | Donor Assistance  | Comments  |
|--|------------|---|---|
| <b>1. Health Financing Reform</b>  |            |   |   |
| 1.1 Approve the National Strategy for Health Finance Reform and initiate the Implementation Plan.  | 2004       | IDA Primary Health Care Project (Swiss Trust Fund), Project Sino (Swiss Agency for Development and Cooperation - SDC) and ZdravPlus (USAID) provided technical assistance for the preparation of the Strategy and implementation plan.  | The Strategy was prepared by the intersectoral Health Finance Working Group, and is currently awaiting approval by the Government.  |
| 1.2 Introduce a per capita-based budget allocation formula for primary health care services, with geographic and demographic coefficients.   | 2005       | IDA Primary Health Care Project (Swiss Trust Fund) provided initial technical assistance. Project Sino (Swiss) and ZdravPlus (USAID) are providing ongoing TA support.  | The formula is currently under development by the Health Financing Working Group, and initial formula is expected to be introduced in the budget appropriation act for 2005.                        |
| 1.3 Define the Program of State Guaranteed Package for essential health services to be provided free of charge and limited introduction of co-payments on a pilot basis. The Program would be complemented by support for the Essential Drug Package by donor agencies.  | 2005       | IDA Primary Health Care Project (Swiss Trust Fund) provided initial technical assistance. Project Sino (Swiss) and ZdravPlus (USAID) are providing ongoing TA support to define and cost the package.   | Pilot program for State Guaranteed Package of essential health services is being tested in two rayons in 2004. Coordinated donor support will be needed to support the Essential Drug Package.      |
| 1.4 Government to commit to real increases in overall budget envelope for the health sector, with targeted increases in primary health care and public health programs. This would include an increase in operating budget and salaries for primary care physicians and nurses, and program budget for priority public health interventions. | 2005 -2006 | Limited technical assistance provided by ZdravPlus and Project Sino.<br><br>Additional TA will be needed to cost the State Guaranteed Package for primary health care services and priority public health programs, including the impact of increasing the salaries for primary care physicians and nurses. | Health budget will be tracked as a percent of GDP and total Government budget.<br><br>The budget targets could be included as a conditionality under the Third Structural Adjustment Credit (SAC3). |
| <b>2. Improving the Quality and Efficiency of Health Delivery System</b>   |            |   |   |

| Action  | Time Frame | Donor Assistance  | Comments  |
|---|------------|---|---|
| 2.1 Prepare a national plan for expanding the Primary Health Care Rationalization Plan, including estimations of resource requirements for health facilities upgrading, human resources development and recurrent budget.   | 2004-2005  | IDA Primary Health Care Project and Project Sino (SDC) contributed to the development of the PHC Rationalization Plan in two pilot rayons. Additional donor support from ADB, IDA and Sino Project are being considered for expanding the rationalization plan to other rayons and oblasts.   | The formal evaluation of the Primary Health Care Project in early 2005 (at the end of the project) will provide a critical input into the appropriateness of the Rationalization Plan. The National implementation plan should be adjusted accordingly. |
| 2.2 Develop a National Training Plan for Family Medicine Physicians and Nurses, and the prepare a plan for establishing a National Curriculum for Family Medicine in undergraduate and post-graduate medical and nursing education.   | 2005-2006  | Ongoing TA provided by USAID, ADB, SDC.<br>Additional TA will be needed to develop a national curriculum and course design for the medium term.   | Training programs for family physicians and nurses are in place for post-graduate and continuing education program, but undergraduate programs are not yet in place.  |
| 2.3 Evaluate and update the existing Clinical Practice Guidelines for primary care, incorporating evidence-based best practice and algorithms, and with greater attention to prevention, diagnosis/ screening and referrals.<br><br>Ensure that the clinical practice guidelines for primary health care interventions are disseminated and used in the training of family physicians and nurses. | 2004-2006  | Multiple agencies involved in the provision of basic public health services should coordinate in developing common clinical guidelines and training activities for the priority health services. These agencies include the UN (UNICEF, UNFPA, WHO), bilateral (e.g., USAID), multilateral (ADB, World Bank) and NGOs (e.g., Aga Khan Foundation, Care International, Mercy Corps, Merlin, Project Hope). | Some 36 clinical practice guidelines for primary care have been developed under the ongoing Primary Health Care Project, but these have not yet been disseminated beyond the pilot rayons.  |

| <b>Action</b>   | <b>Time Frame</b> | <b>Donor Assistance</b>   | <b>Comments</b>  |
|---|-------------------|---|--|
| 2.4 Improve access to essential pharmaceuticals by developing an Essential Drug Package to complement the State Guaranteed Package, to be funded by donors. The Essential Drugs Package would include only the generic drugs.   | 2005-2007         | ECHO (EU), USAID and a number of bilateral agencies have been providing direct support to pharmaceuticals and medical supplies. ECHO intends to reduce its humanitarian assistance over the next three years, while other donor agencies are increasing development support to the health sector. | The transition from humanitarian assistance to development program will require careful coordination among the donors to avoid unintended gaps or duplication of support. The definition of an Essential Drug Package  |
| 2.5 Develop a secondary hospital restructuring plan for selected Oblasts. The restructuring plan would include horizontal and vertical mergers of Oblast, City and Rayon Hospitals and closures of SUBs.  | 2005-2006         | Technical assistance will be required to support the Ministry of Health and the Oblasts develop a hospital restructuring plan for each oblast.  | Potential investment support from KfW and Islamic Development Bank, which are considering upgrading of secondary hospital services   |
| <b>3. Strengthening and Integrating Public Health, Personal Health and Community Health</b>   |                   |   |  |
| 3.1 Develop a National Public Health Strategy, which will include a review of existing public health programs (e.g., HIV/AIDS, Immunization, Drug Abuse) to identify opportunities for improving coordination and reducing duplication, and define the public health functions and organizational structure consistent with the WHO definition of public health functions. Specific attention would be paid to strengthening health promotion /disease prevention and surveillance functions. | 2005              | Technical assistance required to support the development of the national strategy for the Ministry of Health and implementation strategies at national, oblasts and rayon levels.   | The strategy would complement the State Guaranteed package, establish linkages with community-based health programs, and build on existing collaborative relationships such as that between the MOH and UNICEF for immunization, which has been in place since 1993. |



| Action   | Time Frame | Donor Assistance  | Comments   |
|--|------------|---|--|
| 3.2 Develop a national plan for consolidating and strengthening public health laboratory functions at different levels of the system in order to meet critical need for early detection and screening of priority public health conditions, including TB, HIV/AIDS, malaria and chronic diseases.  | 2005-2006  | Technical assistance required to development the strategy and implementation plan.  | The expansion of vertical public health programs is leading to duplicative investments in laboratory facilities. To the extent possible, these facilities should be shared among different public health programs. |
| 3.3 Develop the capacity of selected Jomoats and NGOs to plan and implement community-based health programs focused on public health conditions identified under MDG and other health priorities specific to the local conditions.<br><br>Implement and evaluate community health programs supported by community grants to NGOs.  | 2005-2007  | Technical assistance and community grants needed to assist jomoats and NGOs to strengthen capacity and support community health programs. | AKF/T report on community-based health programs could serve as resource for this activity. NSIFT could play key role in NGO grant management.  |
| <b>4. Improving monitoring and evaluation process</b>  |            |   |  |
| 4.1 Develop a national plan to upgrade the public health surveillance system (to be incorporated as part of the National Public Health Strategy), including specific activities to integrate existing sentinel surveillance (e.g., for TB, malaria, selected childhood diseases) with surveillance of other priority public health conditions (e.g., HIV/AIDS, and conditions such as drug abuse, mental health, micronutrient deficiencies such as anemia and Vitamin A deficiency) | 2005-2006  | CDC / USAID is planning to provide support in this area.  |  |

| <b>Action</b>   | <b>Time Frame</b> | <b>Donor Assistance</b>  | <b>Comments</b>   |
|---|-------------------|--|---|
| 4.2 Develop a national plan for developing the Health Management Information System, which will include a medium-term strategy for improving the accuracy, timeliness and usefulness of key health services utilization and quality indicators. | 2005-2006         | Technical assistance will be needed to support the Ministry of Health in developing the strategy.              | The Health Management Information Strategy should be closely coordinated with the development of the surveillance system. |
| 4.3 Disseminate the information on patients' rights and responsibilities under the Program of State Guaranteed Services   | 2005-2006         | Program support needed to finance the design and production of materials and dissemination of the information. |   |
| 4.4 Develop national regulations on protection of patient confidentiality and patient rights.   | 2005-2006         | Technical assistance required to support this important initiative.  | NGO programs are supporting some initiatives in a limited scope.  |

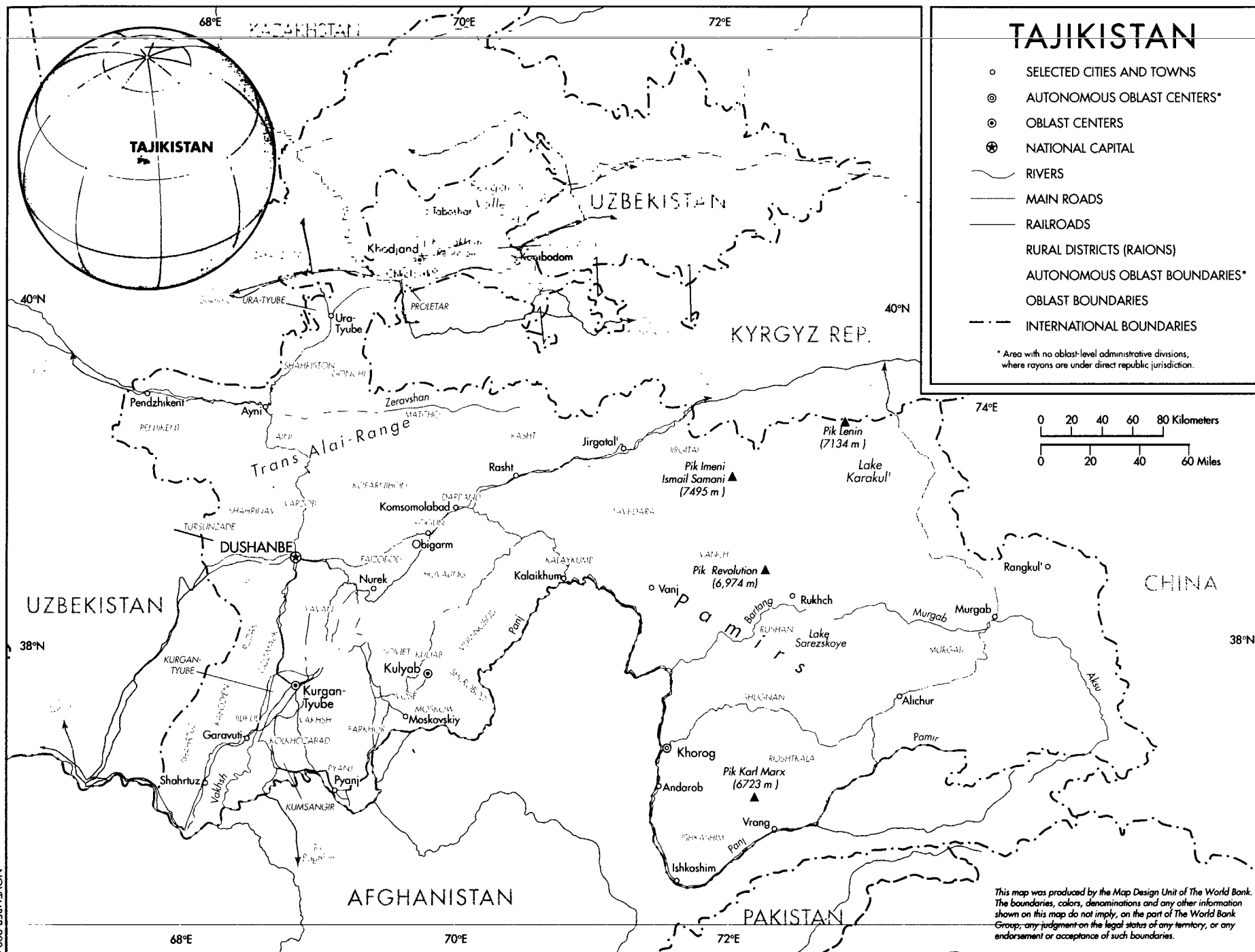
Table 26: Medium-Term Action Plan for the Implementation of the Health Reform Program

| Action   | Time Frame | Donor Assistance  | Comments |
|--|------------|---|----------|
| <b>1. Health Financing Reform</b>  |            |   |          |
| 1.1 Introduce a capitation based payment system for primary care services and global budgets for hospitals, with a gradual expansion of performance-based incentive system.  | 2006-2010  | Technical assistance required to develop the performance-based provider payment system.   |          |
| 1.2 Expand on the Program of State Guaranteed Package to encompass other priority health interventions, including non-communicable diseases such as prevention and management of hypertension and cardiovascular diseases, and targeting subsidies for the most vulnerable groups. | 2007-2010  | Continued donor support for complementary Essential Drug Package will be required in the medium-term.   |          |
| 1.3 Continue to increase in the budget allocation for the health sector based on the expanding coverage under the Program of State Guaranteed services. Improved targeting of state subsidies to protect access to essential health services should be a priority.                 | 2007-2010  | Technical assistance needed to improve the targeting of public resources.   |          |
| <b>2. Improving the Quality and Efficiency of the Health Delivery System</b>   |            |   |          |
| 2.1 National implementation of the Primary Health Care rationalization plan.   | 2005-2010  | Investment support will be required for the construction or rehabilitation of primary care facilities and procurement of basic equipment and furniture. |          |
| 2.2 Implementation the National Training Program for family physicians and nurses and introduction of the national curriculum in the standard medical education program.   | 2005-2010  | Technical assistance and investment support will be required to upgrade the capacities of the medical academies and training centers.                   |          |

| Action   | Time Frame | Donor Assistance   | Comments |
|--|------------|--|----------|
| 2.3 Develop a Health Care Quality Improvement Strategy, which includes a regular updating of clinical practices and public health standards based on current evidence, strengthening of continuing medical education program and licensure system for all health practitioners based on certification of their knowledge and skills with respect to existing guidelines, and establishment of professional associations such as Family Practice Association to support the continuous quality improvement of the health professionals. | 2005-2010  | Technical assistance will be required to develop the Quality Improvement Strategy. A review of experiences in the neighboring countries would provide useful lessons on the practical implementation and resource requirements for undertaking these reforms.  |          |
| 2.4 Expand on the Essential Drug Package consistent with the State Guaranteed Package, and gradually transfer responsibilities for the procurement and management of essential drugs package from humanitarian organizations to the Ministry of Health and local health administration. Introduce revolving drug funds at the jomoat level for items not covered or only partially covered under the Essential Drug Package.   | 2005-2010  | ADB is currently providing TA to strengthen national capacity to procure and distribute drugs. Additional donor financing will be required to support the Essential Drugs Package in the medium-term. Technical assistance will also be needed to develop a strategy for improving the quality of drugs and rational prescribing and use of drugs. |          |
| 2.5 Implement the restructuring of secondary hospitals based on oblast plans.<br>Develop   | 2005-2010  | Investment support will be required to rehabilitate or construct new hospital facilities and upgrade essential hospital equipment. Possible investment support from KfW and Islamic Development Bank   |          |
| <b>3. Strengthening and Integrating Public Health, Personal Health and Community Health</b>  |            |  |          |
| 3.1 Implement legislations and reorganize the public health functions and responsibilities of SES and other public health institutions at the Republican, Oblast, and Rayon levels, based on the National Public Health Strategy.  | 2006-2010  | Technical assistance for capacity building and investments for upgrading and rebuilding the essential public health facilities.  |          |
| 3.2 Update and rationalize existing Republican and oblast level environmental regulations, including water and sanitation, and strengthen the capacity of the public health offices and laboratories to enforce regulations to meet public health and safety standards.  | 2006-2010  | Technical assistance required for capacity building.   |          |

| Action  | Time Frame | Donor Assistance   | Comments |
|---|------------|--|----------|
| 3.3 Develop a comprehensive program of patient education in self-care for manageable chronic diseases (e.g., diabetes) and other health conditions to be implemented through the primary health care and community health programs.                       | 2006-2010  | Technical assistance required to develop the program.  |          |
| 3.4 Develop community health as a recognized allied health specialty with specific protocol and standards of care, and train nurses and feldshers/ community health workers based on these standards.   | 2006-2010  | Technical assistance required to develop the program.  |          |
| <b>4. Improving monitoring and evaluation process</b>   |            |  |          |
| 4.1 Develop capacities at the national and oblast levels to collect, analyze and use data and information in health policy and planning in accordance with the Health Management Information Strategy.  | 2006-2010  | Technical assistance required to develop the program.  |          |
| 4.2 Train all health care providers in standard diagnosis and procedure coding, and in the updated vital registration system.   | 2005-2010  | Technical assistance required. Support from CDC and WHO for assuring adherence to international standards in coding and data definition. |          |
| 4.3 Strengthen health management information systems at the national, oblast and health facility levels according to the Health Information Strategy.   | 2005-2010  | Investments in information systems and telecommunication access.   |          |
| 4.4 Enhance national capacities to evaluate health services performance, including the design and implementation of household and health facility surveys on a periodic basis, and undertake qualitative research and other appropriate research methods. | 2005-2010  | Technical assistance on research and evaluation capacity building activities.  |          |





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