

Health systems in poor countries: the case of Tajikistan

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Outline

- Introduction
 - Poor countries...and health
 - Health system functions.....some major constraints
- Health care in Tajikistan
 - Background
 - Organization, regulation
 - Delivery system
 - Financing
 - Access to care
 - Recent reforms

Poor countries defined as.....

World Bank classification	GNI per capita
Low Income Countries (LICs)	< \$766
Middle Income Countries (MICs)	\$767 - \$9,385
Lower MICs	<\$3,035
Higher MICs	\$3,036- \$9,385

World Bank definition of LIC and MIC (year 2003)

Poor countries defined as.....

Mainly:

- **Sub-Saharan Africa**
- **Some countries south east and central Asia**

Low income

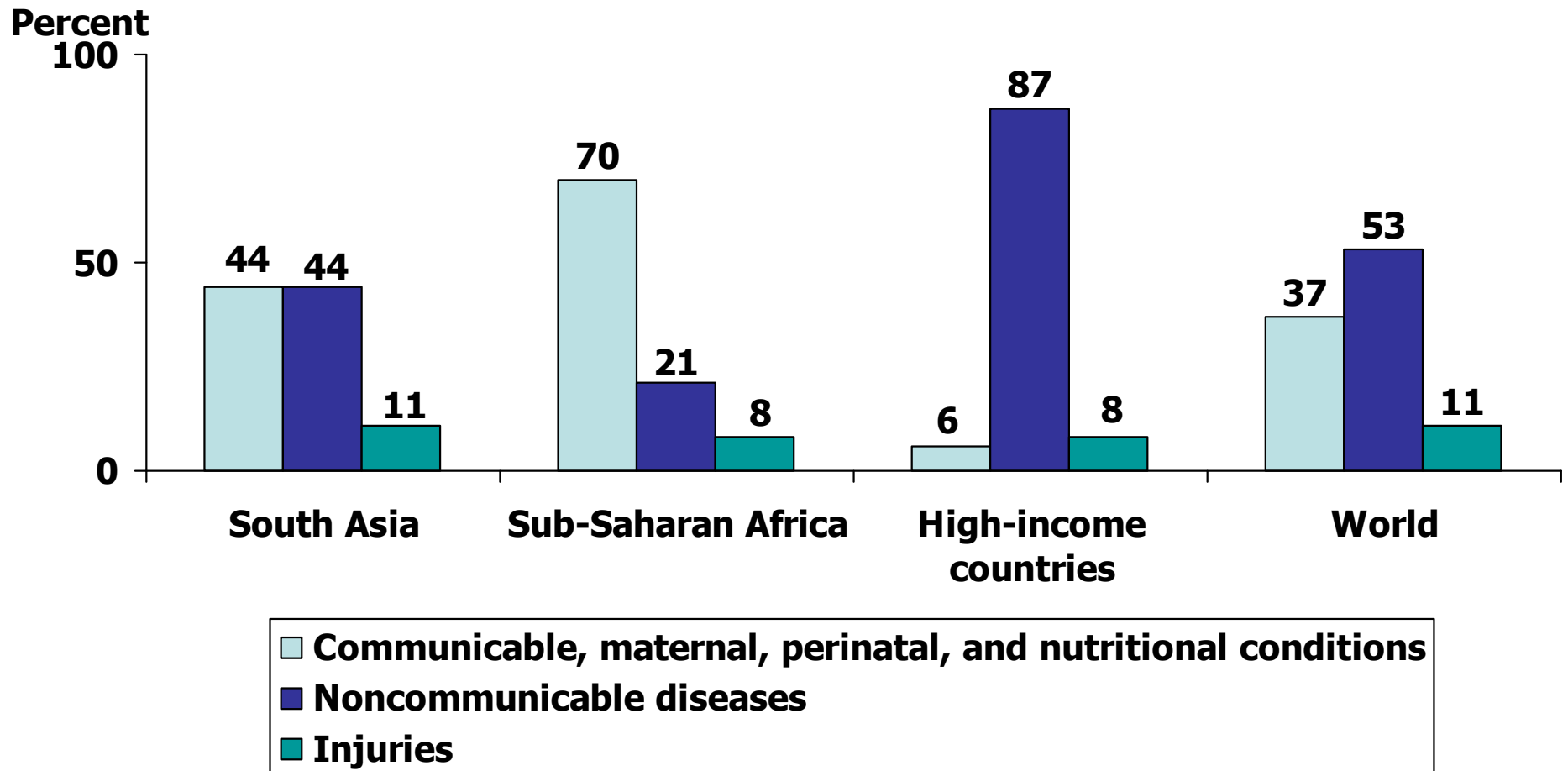
Afghanistan	Comoro	Haiti	Mali	Pakistan	Tanzania
Bangladesh	Congo, Dem. Rep.	India	Mauritania	Papua New Guinea	Timor-Leste
Benin	Congo, Rep.	Kenya	Moldova	Rwanda	Togo
Bhutan	Côte d'Ivoire	Korea, Dem. Rep.	Mongolia	São Tomé and Príncipe	Uganda
Burkina Faso	Eritrea	Kyrgyz Republic	Mozambique	Senegal	Uzbekistan
Burundi	Ethiopia	Lao PDR	Myanmar	Sierra Leone	Vietnam
Cambodia	Gambia, The	Lesotho	Nepal	Solomon Islands	Yemen, Rep.
Cameroon	Ghana	Liberia	Nicaragua	Somalia	Zambia
Central African Republic	Guinea	Madagascar	Niger	Sudan	Zimbabwe
Chad	Guinea-Bissau	Malawi	Nigeria	Tajikistan	

Health indicators.....

Health indicators - year 2004	LICs	MICs	HICs
Life expectancy at birth, total	58.7	70.2	78.7
Fertility rate (births per women)	3.7	2.1	1.7
Mortality rate, infant (per 1000)	79.4	30	6.1
Mortality rate, < 5 (per 1000)	121.5	37.4	7.1
Births attended by skilled HS (% of total)	40.4%	87.3%	Na
Malnutrition prevalence (% of children < 5)	43.3%	11.1%	Na
Imm. measles (% of children 12-23 mths)	63.5%	86.8%	93.2

Source: WHO, 2006

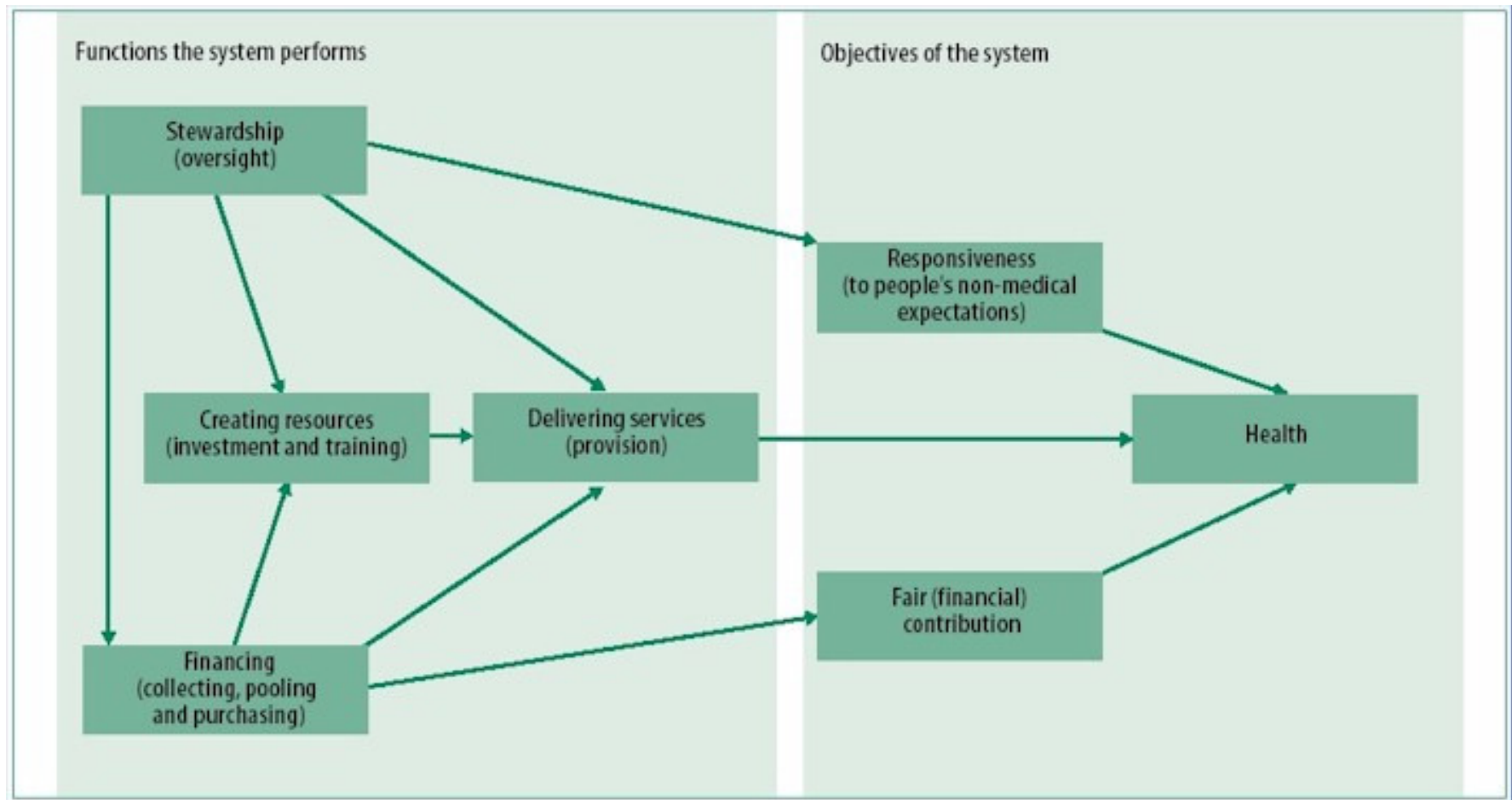
Disease Burden Distribution by Select World Bank Region, 2001



Note: Numbers are rounded.

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 4.1

Health system functions....



Composition of Health Financing by Country Income Level, 2001

Country Income Level	Total Health Expenditures as a % of Gross Domestic Product (GDP)	Public Health Expenditures as a % of Total Health Expenditures	Private Health Expenditures as a % of Total Health Expenditures	External Provision for Health as a % of Total Health Expenditures
High-income countries	7.7	70.1	29.9	0.1
Middle-income countries	5.8	61.7	38.3	3.4
Low-income countries	4.7	51.7	48.3	20.0

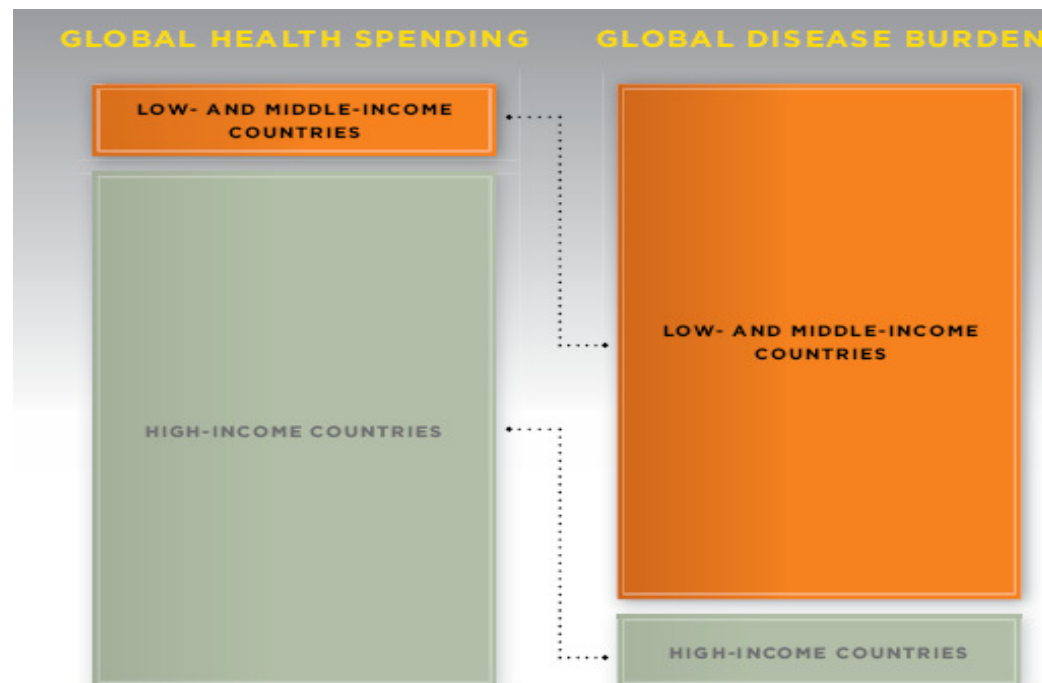
Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 12.1

Some major constraints.....

- Global health spending in 2002 was \$3.2 trillion - 10% of global GDP
- Only 12% of that was spent in LICs and MICs
- HICs spend 100 times more on health per capita (population-weighted) than LIC
 - 30 times if one adjusts for cost of living differences

Some major constraints....

- **In LICs and MICs there are simply not enough resources for health**



Some major constraints.....

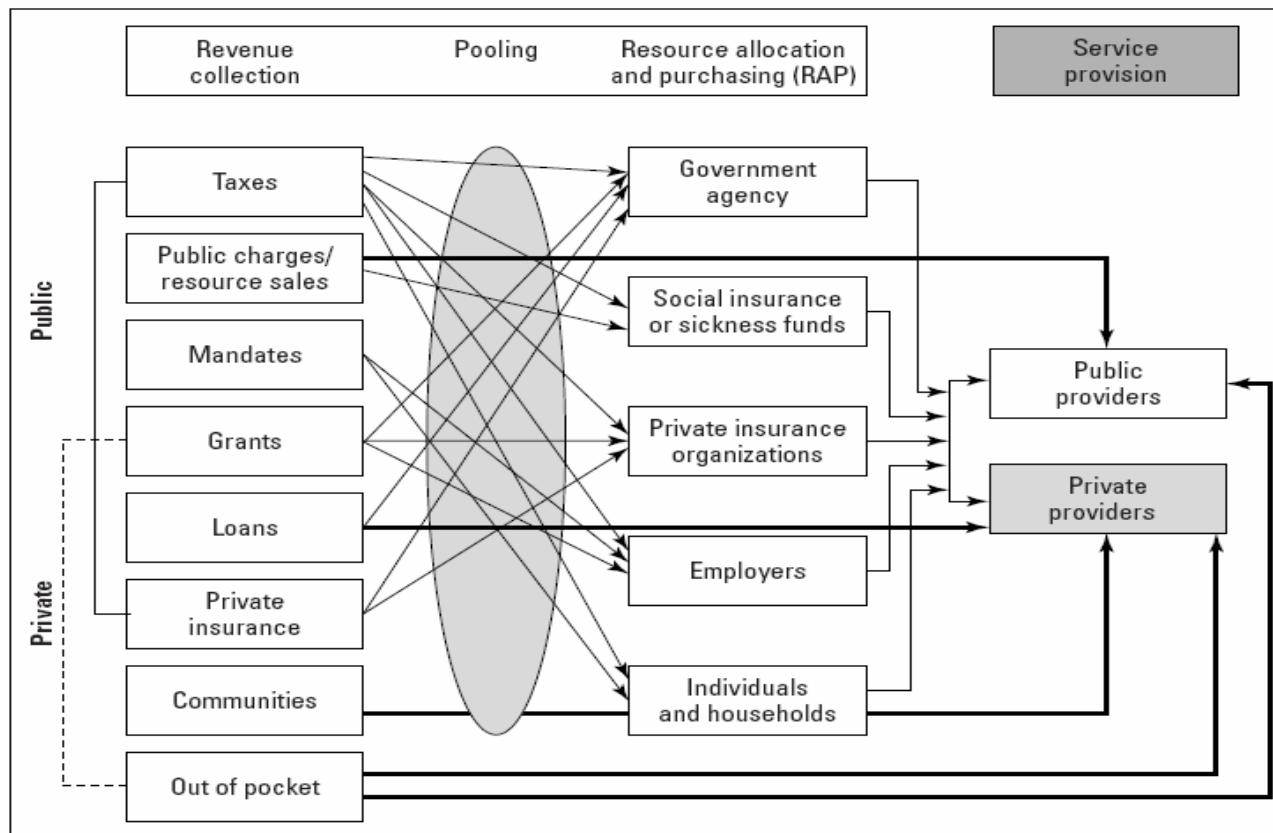
Global health workforce, by density

WHO region	Total health workforce		Health service providers		Health management and support workers	
	Number	Density (per 1000 population)	Number	Percentage of total health workforce	Number	Percentage of total health workforce
Africa	1 640 000	2.3	1 360 000	83	280 000	17
Eastern Mediterranean	2 100 000	4.0	1 580 000	75	520 000	25
South-East Asia	7 040 000	4.3	4 730 000	67	2 300 000	33
Western Pacific	10 070 000	5.8	7 810 000	78	2 260 000	23
Europe	16 630 000	18.9	11 540 000	69	5 090 000	31
Americas	21 740 000	24.8	12 460 000	57	9 280 000	43
World	59 220 000	9.3	39 470 000	67	19 750 000	33

Note: All data for latest available year. For countries where data on the number of health management and support workers were not available, estimates have been made based on regional averages for countries with complete data.

Data source: World Health Organization. *Global Atlas of the Health Workforce* (<http://www.who.int/globalatlas/default.asp>).

Health financing functions



Pooling and RAP.....

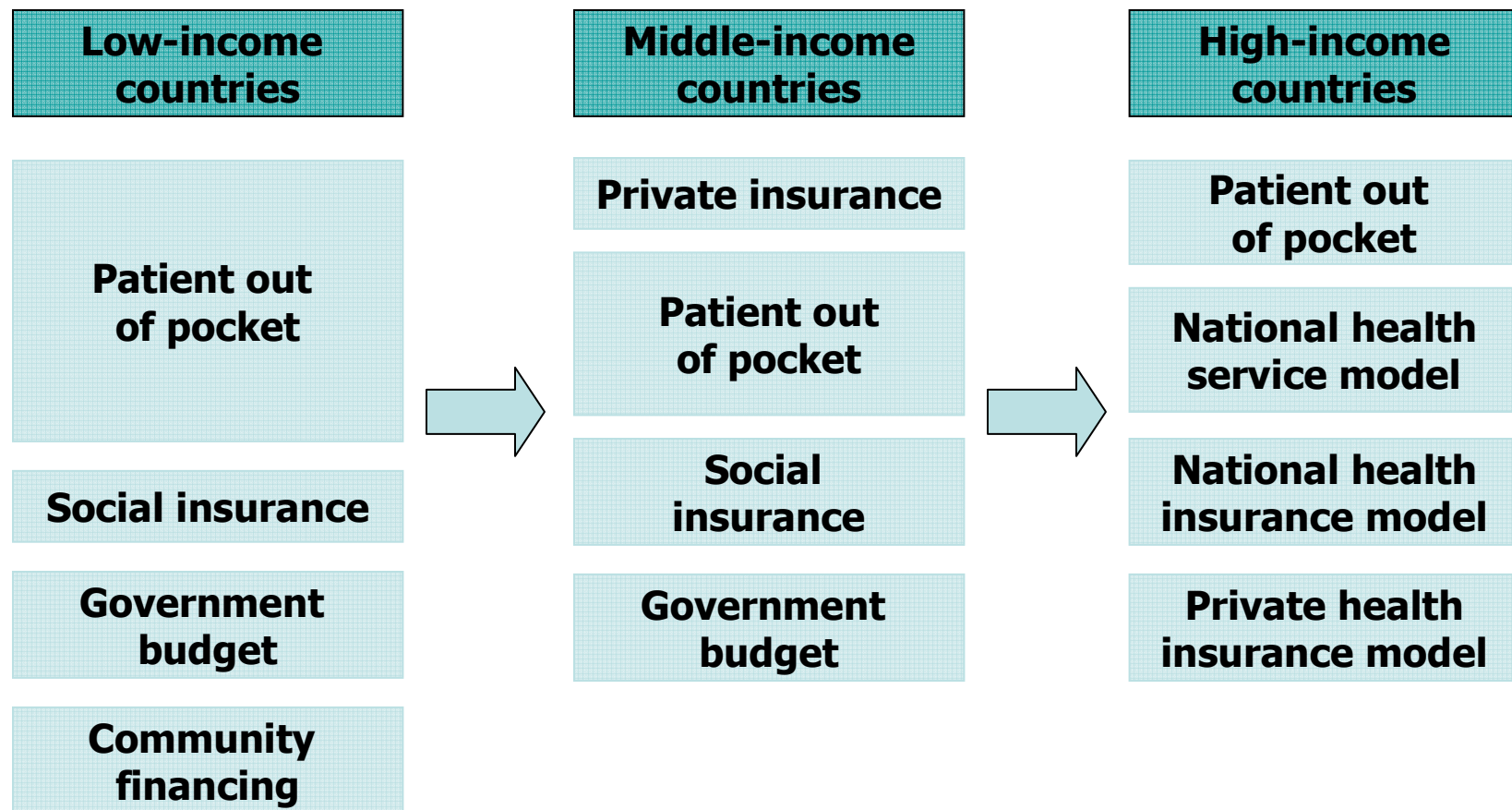
- Social health insurance institutions are a very limited source of health care spending in LIC:
 - 2% of total spending on health in LIC
 - 15% in lower MICs
 - 30% in upper MICs and HIC

- In Sub-Saharan Africa only 2% of all public spending on health (less than 1% of total health spending) is through social insurance institutions

Or not

- Around 60% of the spending in LIC is from out-of-pocket payments by consumers of care
- Share of the private spending that is out of pocket:
 - 93% in LICs (over 60 percent of the total)
 - 85% in MICs (40% of the total)
 - only 56% in HICs (20% of the total)

Health Care Financing System Trends by Country Income Level

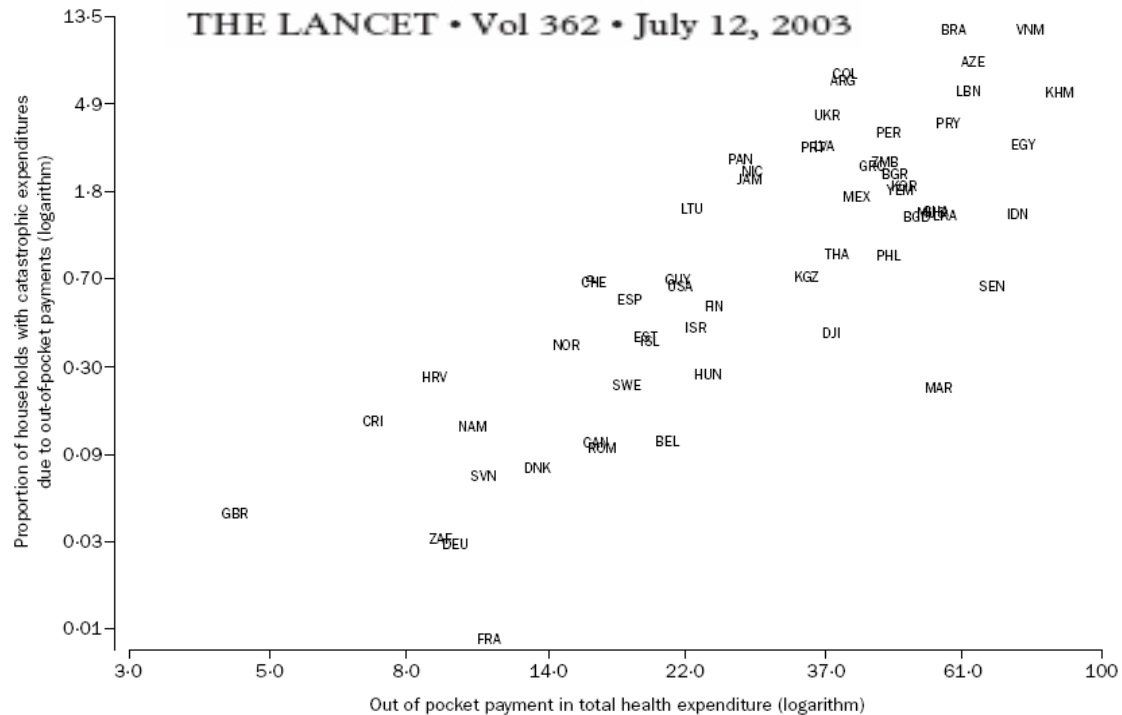


Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Figure 12.2

Catastrophic health expenditure and out of pocket payments

Household catastrophic health expenditure: a multicountry analysis

Ke Xu, David B Evans, Kei Kawabata, Riadh Zeramdini, Jan Klavus, Christopher J L Murray
 THE LANCET • Vol 362 • July 12, 2003



Proportion of households with catastrophic expenditures vs share of out-of-pocket payment in total health expenditures
 Log-log plot is used because the relation not linear. See table 1 for definitions of country codes.

External sources.....aid...

- External sources account for 8% of health spending in LICs and less than 1% in MIC
- But on a country-weighted basis, external sources account for 20% of total LIC country health spending
- In 12 countries in Sub-Saharan Africa, external sources finance more than 30% of total health expenditures

External sources....fragmented...

- In 14 countries that have developed World Bank poverty reduction strategies on average, for every \$1 disbursed by donors:
 - \$0.30 Not recorded in balance of payments
 - \$ 0.20 Recorded in balance of payments but not in government budget
 - \$ 0.30 Earmarked to specific projects recorded in budget
 - \$ 0.20 General budget support

Health System Constraints and Possible Disease-Specific and Health System Responses

Constraint	Disease-specific Response	Health System Response
Patients' inability to pay for services	Price reductions for specific diseases	Risk-pooling strategies
Distance to facility	Outreach for specific diseases	Planning for new facilities
Poorly skilled staff	Training on specific diseases	Revising medical curricula
Poorly motivated staff	Financial incentives for delivering priority services	Reviewing salary structures and promotion procedures
Weak planning and management	Training workshops in planning and management	Restructuring ministries of health, developing cadre of dedicated managers
Lack of inter-sectoral action and partnership	Cross-sectoral committees to address specific diseases	Building systems of local government with representation from various sectors
Poor-quality care among private sector providers	Training for private sector providers	Developing accreditation and regulation systems

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 3.1

Constraints on Improving Access to Health Interventions, By Level

Level of Constraint	Types of Constraints
Community and household	<ul style="list-style-type: none"> - Lack of demand for health services - Barriers to accessing health services (physical, financial, social)
Health services delivery	<ul style="list-style-type: none"> - Shortages and inadequate distribution of qualified staff - Weak technical guidance, program management, and supervision - Inadequate medical supplies and drugs - Lack of equipment and infrastructure

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 3.2

Health Sector Constraints to Improving Access to Health Interventions

Level of Constraint	Types of Constraints
Health sector policy and strategic management	<ul style="list-style-type: none"> - Weak and overly centralized planning and management systems - Weak drug supply systems - Inadequate regulation of the pharmaceutical and private sectors - Lack of inter-sectoral action and partnership for health between government and civil society - Weak incentives to use resources efficiently and to respond to users' needs and preferences - Reliance on aid agency funding, which reduces flexibility and ownership - Aid agency practices that overload country management capacity

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 3.2

Public Policy Constraints to Improving Access to Health Interventions

Level of Constraint	Types of Constraints
Public policies cutting across sectors	<ul style="list-style-type: none"> - Government bureaucracy (civil service rules and remuneration, centralized management system) - Poor availability of communications and transportation infrastructure

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 3.2

Environmental and Contextual Constraints to Improving Access to Health Interventions

Level of Constraint	Types of Constraints
Environmental and contextual characteristics	<p>Governance and overall policy framework:</p> <ul style="list-style-type: none"> - Corruption and weak government - Political insecurity and instability - Low priority attached to social sectors - Weak structures for public accountability - Lack of a free press <p>Physical environment:</p> <ul style="list-style-type: none"> - Climatic and geographic predisposition to disease - Physical environment unfavorable to service delivery

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 3.2



SCIH Swiss Centre for
International Health

Improving Health Systems Worldwide

Health care in Tajikistan

Background to Tajikistan



Background to Tajikistan

- Mountainous (93%) and landlocked country located in central Asia; 6.5 million pop.
- Former Soviet republic, independence in 1991; civil war followed; UN mediated peace settlement in 1997
- Few natural resources / industry (cotton/alluminium)
 - GDP per capita US\$ 278 (2005)
 - 64% of population living below 2 US\$ per day (WB 2004)
- Adult literature rate (99% during Soviet period)

Background to Tajikistan

- Nearly three quarters of its 6.5 million population live in rural areas
 - Agriculture is the main economic activity even though only 7% of the land is arable

- During the winter roads are often impassable so that travel between some regions is via Uzbekistan and Kyrgyzstan

Challenges of transition

- General economic shock
 - Rising poverty and widening inequalities

- Fiscal shock:
 - sudden, rapid contraction of government revenues
 - followed by necessary contraction in public spending

Challenges of transition

- Health financing shocks
 - Reduced public spending
 - Rising input prices (drugs, utilities)
 - Shortages of key treatment inputs
 - Fixed costs absorb most government health spending
 - Informal payments by patients, both to health workers and for treatment inputs

Health in Tajikistan

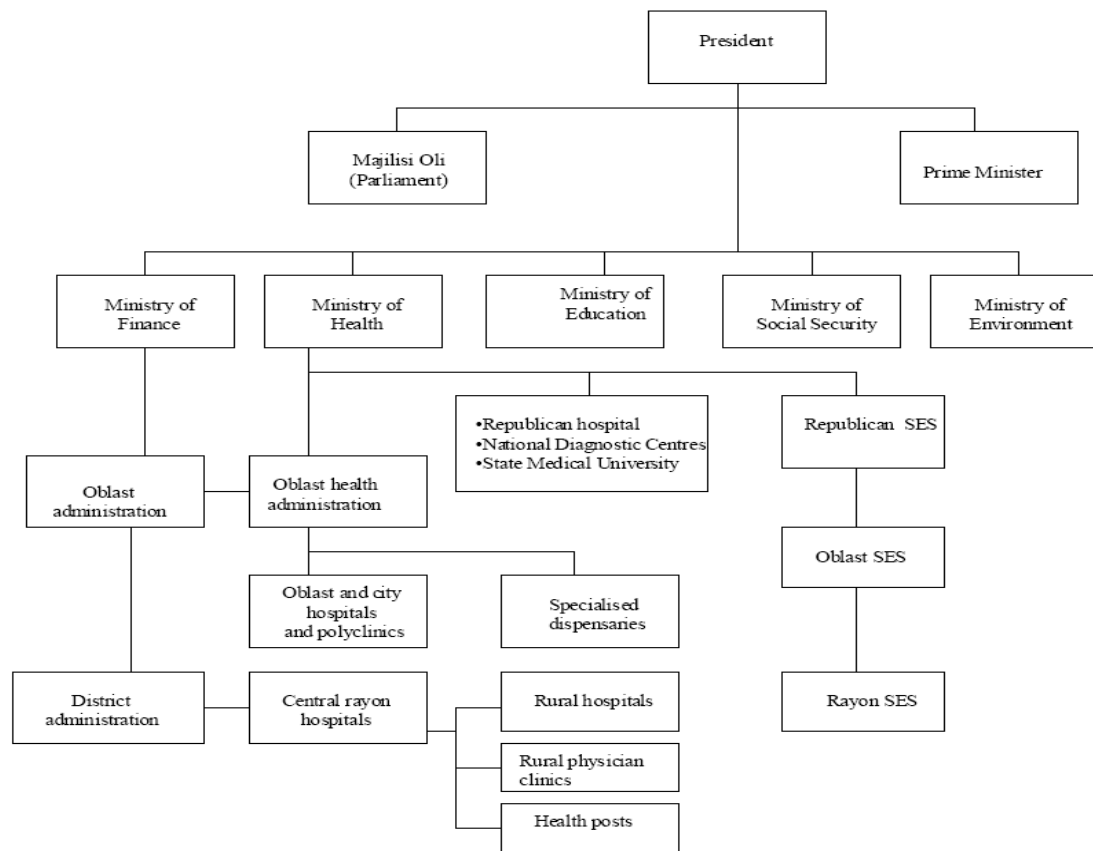
Health Indicator, by source	Indicator	Period
Infant mortality rate per 1,000 live births		
Demographic Survey, 2002	94.5	1992-1996
Demographic Survey, 2002	86.9	1997-2001
Tajikistan Living Standards Survey, 1999	78	1994-1998
UNICEF Multiple Indicator Cluster Survey 2000	89	1993
Official Government statistics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

Administrative structure of the country

- There are four levels of administration
 - National
 - Oblast (province)
 - Rayon (district)
 - Kishlak (village)

- The organization of health services follows the administrative structure of the country

Organizational chart of health care system



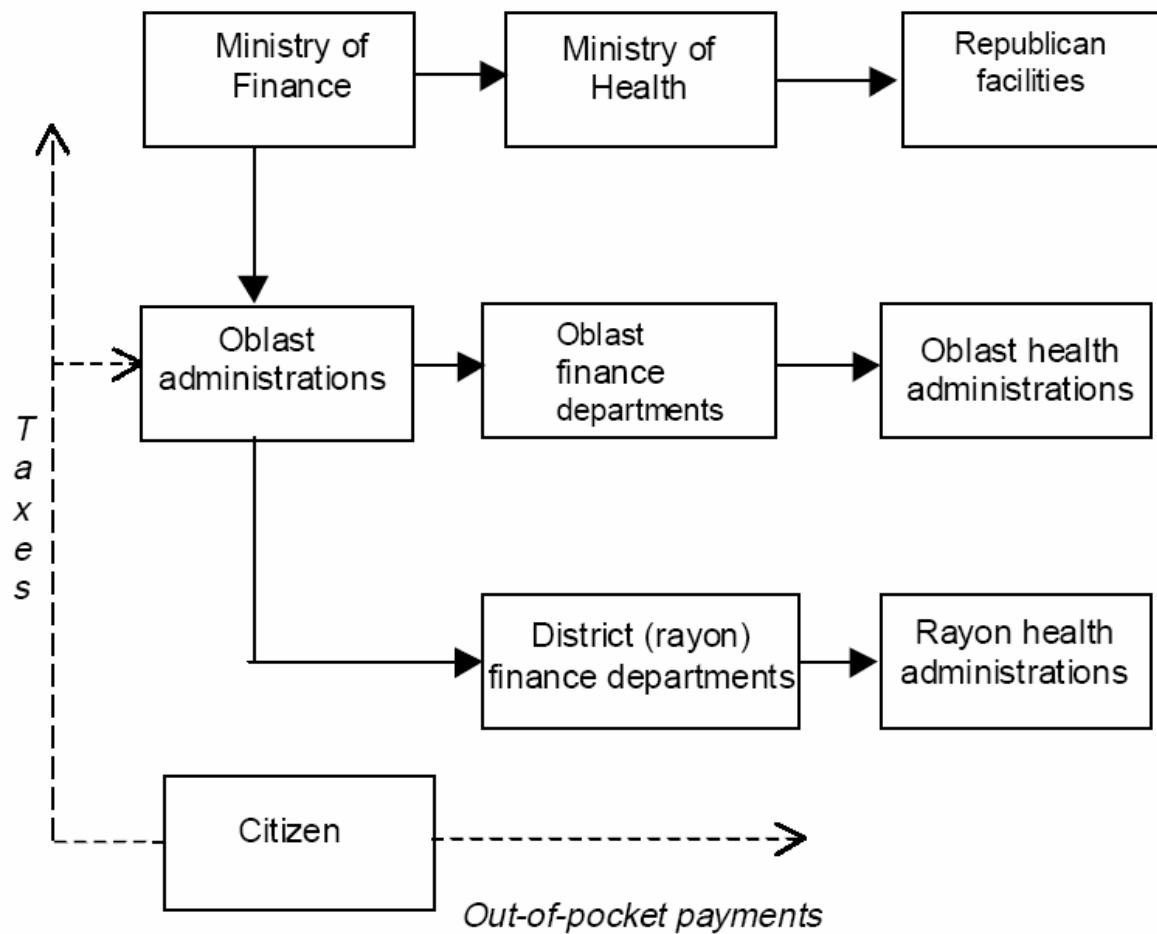
Planning and regulation

- Policy is made by the GoT through legislation, presidential orders and by ministerial regulations
- Health planning remains focused upon the budgetary process
- Budget proposals are developed in the health care facilities, using standardized budget lines and passed up the administrative hierarchy for approval
- Budgets are allocated to health facilities according to detailed line item model

Resource allocation – budget formation

- Health care providers are funded mainly through republican/oblast/rayon budgets, according to norms on the number of beds and other factors
- Budgets are set for each of the administrative units: republic, oblasts, cities, rayons and jamoats

Financing flow chart



Budget formation process

- Normative-based process
- Highly centralized and based primarily on inputs
- The executed budgets are typically reduced substantially from the original normative-based planned budgets - from 47% to 93% of planned funding (WB)

Health care delivery system

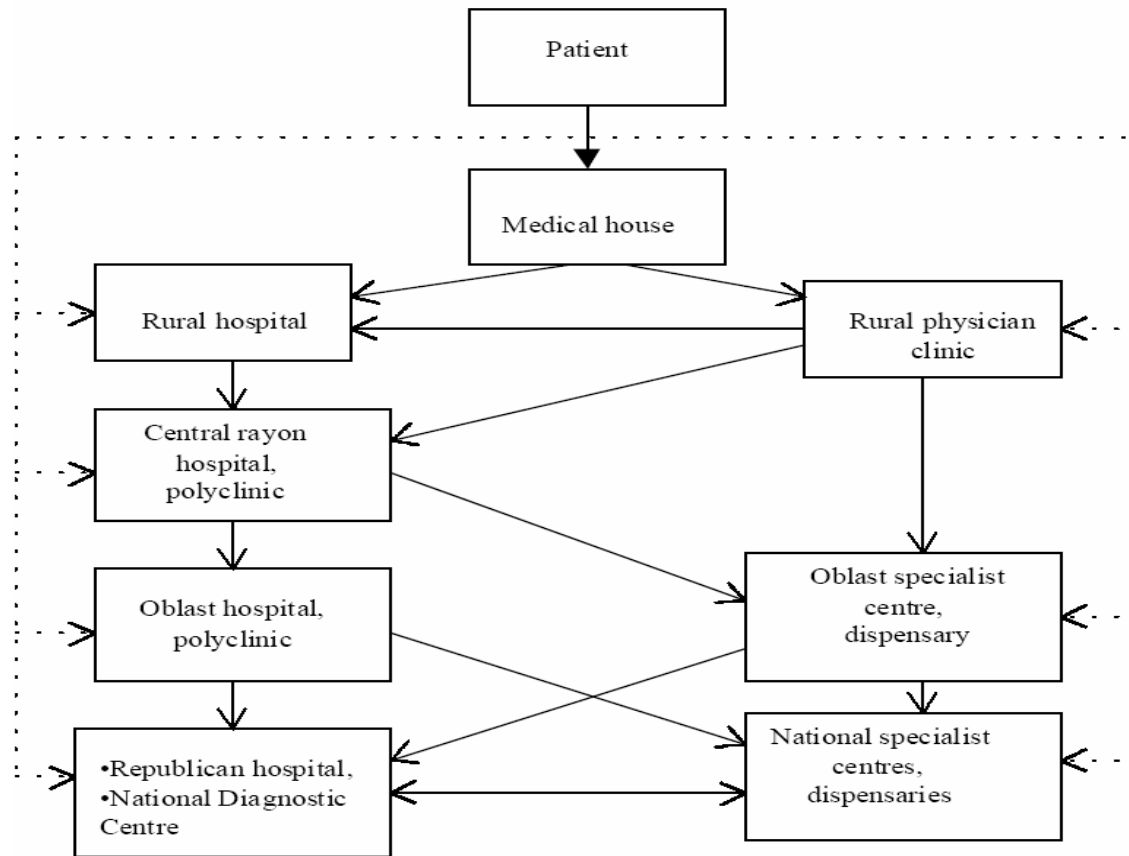
- Delivery of health care services is divided between national (republican), regional (oblast), district (rayon) and village
 - The MOH runs national-level institutions, and local administrations run other health care services

- In rural areas, primary care is delivered through nurse posts, rural health centers, and small rural hospitals

Health care delivery system

- In urban areas, primary and secondary care is delivered by polyclinics
- Basic secondary care is delivered by district (rayon) hospitals
- Specialized secondary care in regional hospitals, and more complex care in national hospitals
- The health care system is hospital-centred, with long inpatient stays

Patient flow chart, health care facilities



Human resources

- Tajikistan has more health personnel compared to other LICs
 - All employed in the public sector
 - Number of physicians 2.03 per 1000
 - Number of nurses and midwives 5.2 per 1000

Human resources

- Salaries of health staff are very low
- A large number of people have left the health sector mainly due to low salaries and migration
- High need for re-training of health staff

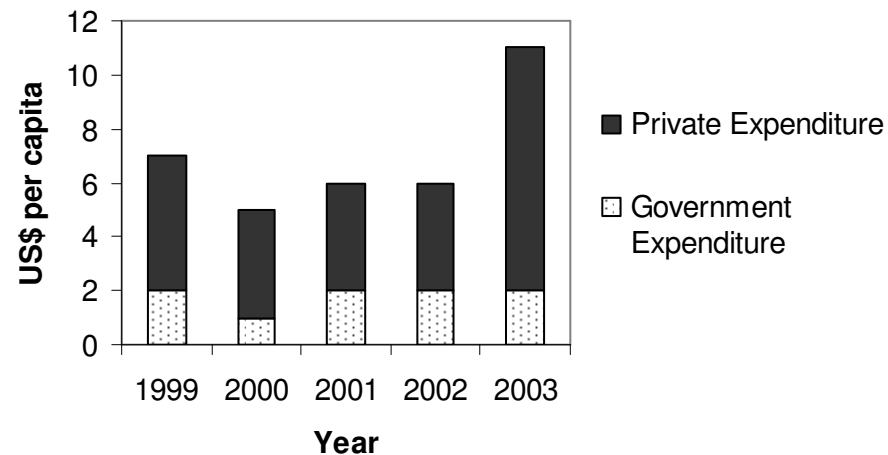
Health care finance and expenditure

- Tajikistan health system traditionally was well-funded, and in the early 1990s spending was still around 5-6% of GDP

- Real per capita government health expenditures have fallen from about \$15 per person in 1991 to less than \$2 per capita in 2000

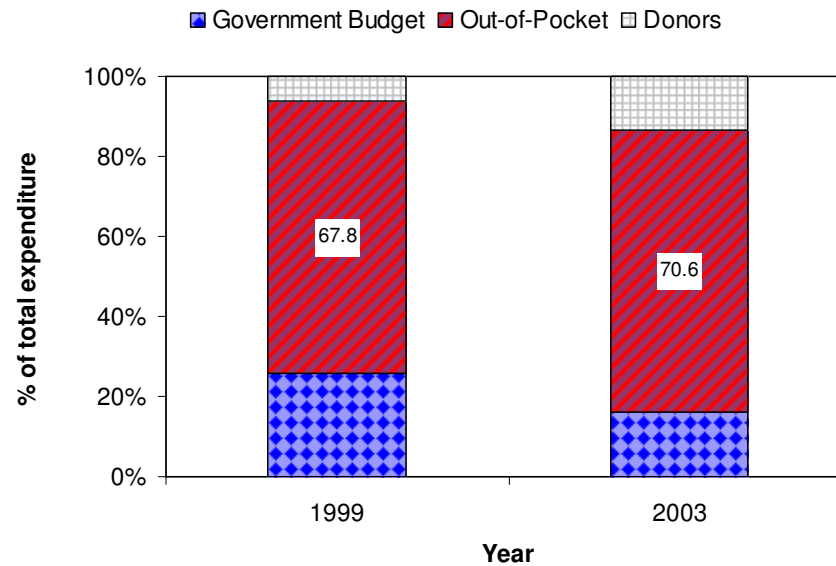
Health expenditure

- Total expenditure on health care per capita < 12 US\$ (2003)
- Govt funding for health limited (less than 1% of GDP)
 - = < 4 US\$ per capita (2006)



Health expenditure

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- Govt funding for health limited (less than 1% of GDP)
 - = < 4\$US per capita (2006)



GoT Health budget

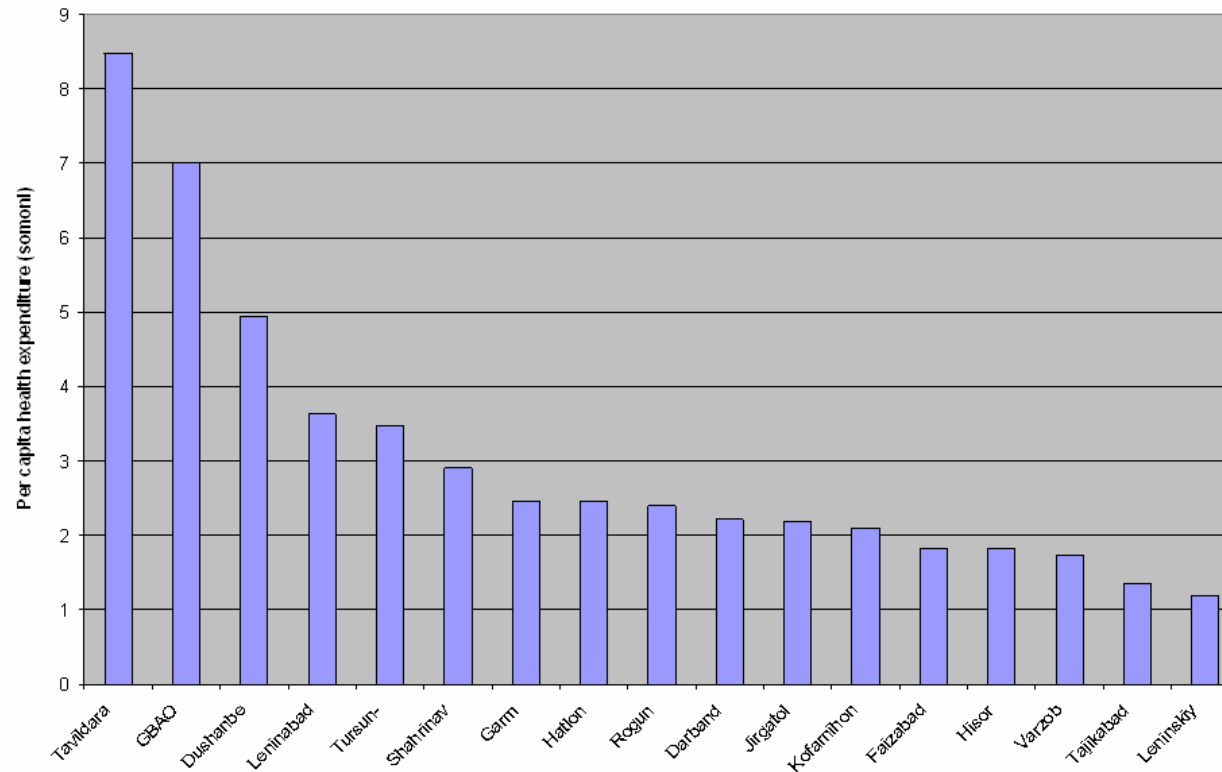
- **Mainly costs of personnel**
- **Only small proportion of the budget allocated to PHC**
- **No investments**

Estimated GoT budget for health service delivery in 2005 (in TJS)

	<i>PHC</i>		<i>HOSPITAL</i>		<i>OTHER</i>		<i>TOTAL</i>	
	TJS	%	TJS	%	TJS	%	TJS	%
Human resources	8'271	73%	18'073	57%	2'567	61%	28'911	62%
Goods & services	1'182	11%	9'858	31%	969	23%	12'009	26%
Drugs	1'730	15%	2'403	8%	372	9%	4'504	10%
Other	54	1%	464	2%	43	1%	562	1%
Capital	27	0%	791	3%	245	6%	1'063	2%
TOTAL	11'264	24%	31'589	67%	4'195	9%	47'049	100%

GoT health expenditure

Per Capita Local Government Health Care Expenditure (2001)



Source: Ministry of Finance

Out of pocket expenditure

Patterns of Out-of-Pocket Expenditures for Outpatient Care - TLSS 1999 & 2003

Total Expenditure Quintile	1999		2003	
	% of those seeking care who made a payment	Average payment in <u>somoni</u> (range)	% of those seeking care who made a payment	Average payment In <u>somoni</u> (range)
1	26.2	2.2 (0.2-14)	80.0	14.9 (1-70)
2	39.4	2.5 (0.1-18.8)	86.9	22.8 (1-401)
3	29.3	4.0 (0.3-24)	92.2	19.7 (1-148)
4	36.5	6.1 (0.2-30)	91.8	28.3 (1-235)
5	29.2	8.8 (0.1-110)	94.4	40.2 (1-415)

Out of pocket expenditure

Patterns of Out-of-Pocket Expenditures for Hospital Care – TLSS 1999 & 2003

Total Expenditure Quintile	1999		2003	
	% of those seeking care who made a payment	Average payment in <u>somoni</u> (range)	% of those seeking care who made a payment	Average payment In <u>somoni</u> (range)
1	91.8	39.6 (0.9-300)	98.3	103.5 (1-705)
2	90.7	39.9 (0.8-229)	98.7	121.2 (2-650)
3	95.8	60.98 (1.5-500)	97.8	129.6 (2-1010)
4	95.2	78.6 (0.2-416)	96.0	166.7 (2-12400)
5	92.8	107.9 (0.1-820)	97.9	235.2 (5-1600)

Recent reforms

- Many reforms planned but low capacity to implement them
- Strengthening of PHC and introduction of Family Medicine model
- Increase of salaries of health sector personnel
 - Differential increase of salaries of PHC personnel

Recent reforms

Attempt to implement:

- Formal paid services and
- A Basic Benefit Package to be provided free of charge to vulnerable population groups

Recent reforms

- The main objectives of this reform are to:
 - divert public resources to target priority groups
 - generate additional resources through the introduction of co-payments and paid services
 - reduce informal payments by patients
 - reduce inequalities in resource allocations

- Piloted in two districts between Aug 2004 – Sept 2005 – stopped in Oct 2005 for political reasons

Recent reforms

- **A new health financing strategy:**
 - Pooling of funds at rayon and then oblast level
 - Introduction of capitation payment for Primary Health Care

- **Main objectives:**
 - Improve efficiency in budget formation
 - increase equity in resource allocation and efficiency in primary care services
 - increase funding of PHC