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CHILD POVERTY IN TAJIKISTAN

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**Report for UNICEF country office
Dushanbe, Tajikistan**

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EXECUTIVE SUMMARY

Tajikistan is now at a crossroads. After a decade of political economic and social upheaval the country is now entering a period of political stability and sustained economic growth. Strong economic growth provides Tajikistan with an opportunity to invest in its future. The cohort of children born today will be aged 15 in 2021 and have the potential to enter the labour force better educated, healthier, more socially integrated than in the past, with greater productivity and making a higher contribution to society. Thus how the benefits of economic growth are distributed within society over the next few years will shape these children's future and the future of the country as a whole.

This report presents empirical analysis of the *Tajikistan Living Standards Survey* 2003 and the *UNICEF Multiple Indicator Cluster Survey* 2005 in Tajikistan to assess the living conditions and well-being of children in Tajikistan. The report takes the Convention on the Rights of the Child (CRC) as the framework for conceptualising child poverty. The CRC sets out the basic human rights that children everywhere have: the right to survival; to develop to the fullest; to protection from harmful influences, abuse and exploitation; and to participate fully in family, cultural and social life. **Child well-being can be thought as the realisation of these rights, whilst child deprivation, or child poverty, results from the denial of these rights.**

As child rights are multi-faceted, indicators of child poverty must be multi-dimensional. This report therefore includes the latest evidence on a range of empirical indicators of child poverty including *economic* measures of poverty based on monetary measures, *and* a range of outcome measures reflecting the health and survival and the education and personal development of children, including exposure to the risk of violence. Taking a rights approach to child poverty, with its emphasis on obligations and accountabilities, highlights the role played by the family, the community and the state in facilitating children to realise their full potential.

Key findings include:

Material poverty
- Child poverty is significantly higher than the overall poverty, with 66 percent of children aged under 18 defined as poor, compared with 61 percent of adults.
- Child poverty varies by age, gender with younger children particularly those aged under 3 being more likely to be poor than older children.
- There are strong regional disparities with the risk of child poverty being highest in GBAO and Khatlon.
- Child poverty varies with the level of parental education with children of better

educated parent's being less likely to be poor - over seven out of every ten children whose mother only attended primary school are poor compared with four in ten children whose mother attended higher education.

- Children whose mother and father are both in work having a lower risk of poverty than those where neither is working. However, in many sectors, particularly agriculture and the public sector, wages remain low and are not sufficient to lift families out of poverty.

- In Dushanbe, children with both parents *not* working face a 25 percent higher probability of being poor than if at least one parent is working.

- Analyses of child material poverty are particularly sensitive of intra-house-hold resources allocation, and more qualitative studies are necessary to unlock the 'black box' of the household and to improve estimates of child material poverty.

Child survival

- Comparison of data from the 2000 and 2005 UNICEF Multiple Indicator Cluster Survey highlights that indicators of child survival are improving.
    - The infant mortality rate (deaths to children aged under 12 months per 1,000 live births) fell from 89 to 65.
    - The under five mortality rate (deaths to children aged under 5 years per 1,000 live births) fell from 126 to 79.

- There is significant variation in child mortality across the country. High child mortality appears to be correlated with high poverty.

- There are some areas with relatively low mortality despite high poverty – more analysis of these 'good health performers' could provide important lessons for policy makers and planners.

Child nutrition

- The nutritional status of children in Tajikistan is a major cause for concern:
    - 17 percent of children under age 5 in Tajikistan are underweight (low weight for age).
    - 7 percent of young Tajik children are wasted (low weight for height).
    - 27 percent of children under 5 are stunted (low height for age).
    - 35 percent of children under 5 have some form of anthropometric failure
    - 12 percent of children under 5 have some form of *severe* anthropometric failure - representing around 100,000 children
    - Around 10,000 children are stunted, wasted and underweight.

- Levels of acute child malnutrition increased between 2003 and 2005.

- The likelihood of a child being underweight or wasted increases up to age 12-23 months and then falls thereafter. Children aged 12-23 months are 70 percent more likely to be underweight than a child aged 6-11 months. This coincides with the time when foods other than breast milk are generally introduced into the diet.

- The absence of appropriate early child-rearing practices, including breast-feeding and balanced diets, is a major cause of nutritional failure amongst young children. Most women in Tajikistan stop exclusively breastfeeding and switch to a mix feeding pattern relatively early; amongst children aged 6-23 months under 5 percent are either 'exclusively' or 'almost exclusively' breastfed. As a result many children are exposed to the risk of poor nutrition and associated adverse developmental consequences.

- Poor access to clean water and sanitation is also a major problem. 34 percent of children aged under 5 living in Tajikistan do not have access to improved water sources. Only 21 percent of children have access to piped water into the dwelling, 13 percent have piped water in the yard but 21 percent have to rely on a public tap. Worryingly, 28 percent of young children are reliant on surface water for their main source of water; such water is often contaminated exposing children to the risk of contacting gastric bugs and other water borne diseases including cholera and typhoid.

- Chronic child malnutrition is worst in Khatlon and GBAO – areas where material poverty is highest and where access to improve sources of drinking water is lowest.

- However acute malnutrition is high in Dushanbe. Thus although material poverty is lowest in the capital, there remain a minority of children who are severely deprived and who risk being overlooked in projects which target areas where chronic malnutrition is high.

- There are significant differences in the proportion of children stunted by mother's education, with children of mothers with higher education being significantly less likely to be stunted than children of mothers with lower education (19% v 26-28%).

- There is a clear link between child nutritional status and household 'wealth'. Children living in a household in the poorest quintile are almost three times as likely to be underweight or stunted and almost twice as likely to be wasted than a child living in a household with the richest quintile.

- Access to land matters. Living in a household without access to land increases the risk that a child is underweight by almost 50 percent

- Once other factors are controlled for, the ownership of livestock significantly reduces the chances for a child to be both stunted and underweight.

Policy implications: To serious tackle child malnutrition there need to be concerted efforts to improve the water and sanitation infrastructure, promote good early child-rearing practices including the positive benefits of breastfeeding, and to address the issue material poverty.

Access to health care
The state has a responsibility towards children to provide access to good quality health care to support the achievement of children's rights to survival and development. However it appears that this responsibility is not being fulfilled.

- Utilisation rates for health care are low.
- 'Affordability' is cited as the main reason for non-use.
- The level of out of pocket payments associated with a health care consultation are high.
- Prescription medication constitutes the most expensive outlay associated with an episode of ill health, averaging nearly 22 somoni (around $7) - this is equivalent to approximately half of the monthly poverty line.
- The average value of official payments was 9 somoni, informal gifts 5.5 somoni and travel to the consultation - 7 somoni. Taken together the cost of one episode of child ill health involving a primary care consultation and prescription can easily amount to the parent's total monthly salary.
- There are no differences in the percentages paying for services during hospitalisation according to whether the patient a child.

Policy implications: Children's access to free health care for basic primary and hospital based health services needs to be restored and protected. In particular, the government needs to increase the proportion of GDP that is directed towards health care and to prioritise heath services for children if the generation being borne today is to realise their full potential. The Government is currently introducing a series of reforms to the financing of the health sector; exemptions for children from all charges for basic health care services should be part of that reform.

Education

Good early childhood care and education (EECE) programmes can significantly enhance young children's well-being in the formative years.

- Data from the UNICEF MICS 2005 shows that only 10% of children aged 36-59 months are currently attending some form of organised early childhood education programme.
- This varies significantly by region, with young children in Dushanbe being considerably more likely to be enrolled than children elsewhere in the country.
- Children from the poorest families, and who may be thought to benefit most from ECCE provision in terms of health and education, are most likely to be excluded from it. Just 1 percent of young children living in the poorest fifth of households as ranked by their ownership of assets, are enrolled in organized early childhood education compared with 20 percent of those in the richest fifth.
- The low level of enrolment in ECCE means that a high proportion of children in Tajikistan enter the first grade of primary education unprepared for the school program. Overall, only around 30 percent of first graders report having attended preschool. This varies from 76 percent in Dushanbe to just 9 percent in Khatlon; and from 11 percent of those from the poorest households to 59 percent of those living in the richest households.

Policy implications: Restoration of a functioning network of kindergartens remains a priority. As well as rehabilitating the physical infrastructure, policies on payments and access need to be put in place that all children, including those from the poorest households, have an opportunity to benefit from ECCE.

- Enrolment rates in basic education are generally high, although rates decrease with age after age 12, with the fall being more pronounced amongst girls than boys.

- There appear to be no significant differences in enrolment in primary education by gender or by the socio-economic characteristics of the family.

- There are, however, significant differences for enrolment in secondary education

- Girls are less likely than boys to enrol in secondary education, particularly upper secondary.

- Parental characteristics have a significant impact upon the likelihood of a child being enrolled in secondary education.

  - Children with higher educated mothers and fathers are more likely to be in secondary education than those whose parent's have only primary education or lower.

  - Father's employment status is also found to affect strongly affect enrolment in upper secondary education.

- There are strong regional differences in enrolment in education, with enrolment in secondary education being lower in urban districts than in rural areas.

- Children living in Dushanbe experience the lowest level of engagement with secondary education, with an enrolment rate amongst 11-15 year olds of around 85 percent compared with the national average of around 93 percent.

- A significant proportion of pupils stay on for upper secondary education in GBAO. Elsewhere however enrolment rates drop to around 65 percent.

- Multi-variate analysis of school enrolment and drop out highlight the importance of place in determining school attendance as well as household's socio-economic characteristics. Employment opportunities in the area and the availability, and perceived quality of education all exert an influence in the decision to stay in education in Tajikistan.

Policy implications: Policies that impact on the community level, including school refurbishment and active enforcement of the Labour Code prohibiting work before age 14, could have a significant beneficial effect on schooling. Particular attention needs to be given to encouraging girls to stay in secondary education. High drop out rates in urban areas, particularly Dushanbe, merit further investigation.

Child Labour

- According to the UNICEF MICS 2005, around 200,000 children aged 5-14 are engaged in some form of child labour (excluding non intensive household chores) and 65,000 children aged 5-14 are engaged in paid work. Most of these children attend school, but around 10% i.e. 20,000 do not.

- The proportion of children engaged in child labour varies significantly by their household's socio-economic position. Children living in the poorest households are nearly twice as likely to be engaged in child labour than those living in the richest households (15.6% compared with 9.5%).

- Drop out rates amongst working children are higher in urban than rural areas, with 26 percent of working children in urban areas not attending school compared with just 7 percent in rural areas.

- Drop out rates amongst child labourers also vary by mother's education, being highest amongst those children with the least educated mothers.

- Interestingly, although GBAO has the highest rate of child labour, it also has the lowest rate of school drop out amongst these children, with just 8 percent of child labourers not attending school compared with the national average of 11 percent.

- In contrast, Dushanbe, with the lowest rate of child labour, has the highest rate of school drop out amongst those who work at 14 percent. This may reflect the type of work children are engaged in and the fact that it is easier to combine some forms of work with schooling than others.

Policy implications: Child labourers are effectively excluded from the opportunity to fulfil their potential to the fullest possible. The government of Tajikistan needs to develop a comprehensive policy for eliminating child labour. As part of this, the GoT needs to sign the ILO Convention 182 on the 'Worst Forms of Child Labour.'

Child abuse

Child abuse and neglect is prevalent throughout Tajik society and many children are routinely exposed to physical and psychological punishment in the home, at school and in other settings. Urgent action is needed in order to implement the CRC in this sphere.

- 7 percent of children aged 2-14 were beaten by a hard object like a belt, hairbrush or stick in the previous month

- 4 percent were 'hit over and over as hard as one could'.

- Over 50 percent of children were subjected to punishments such shaking or being spanked on the bottom with a hand. Two-third of children were shouted at and over a third were called dumb or lazy or other names.

- Such violence seems to be accepted as part of normal life by Tajik children. In a qualitative study, when asked how they would handle problems of violence in their family, 44 per cent of children said that they would suffer in silence because their parents 'have the authority and right to use violence to punish them'.

- Around a sixth of caregivers agreed with the statement that 'in order to bring up children properly, you need to physically punish them'.

- Outside of the home, between a quarter and a half (25-50%) of adolescents have experienced either physical or psychological abuse at school from teachers and classmates.

- Children are also vulnerable to routine abuse by employers who subject them to poor working conditions and low pay. This is particularly the case within the agricultural sector.

Policy implications: There are some positive signs of progress. In 2003, the National Expert Group on Violence against Children was established by the National Commission on Child Protection. It is hoped that the 2005-2009 Country Programme Action Plan (to Reduce Violence and Exploitation of Children) will begin to deliver the protection and security to which all children should be entitled. Continued progress will require national, international and local communities to work together to advocate and implement child focused programme, policies and child welfare and protections systems.

Knowledge of HIV/AIDS

Knowledge of HIV/AIDS amongst young people in Tajikistan is alarmingly low.

- In 2000 just 10 percent of young women aged 15-19 had heard of the disease. This had risen to 30 percent in 2005, but the percentage of young people who have knowledge of how to protect themselves from contracting HIV is still disturbingly low.
- Knowledge of AIDS varies considerably by region, being lowest in Khatlon (17%) and highest in GBAO (58%).
- Knowledge also varies by women's socio-economic characteristics. Young women whose mothers have had a higher education are significantly more likely to have heard of AIDs (79%) than those with complete secondary (38%) or incomplete secondary (23%) education.

Policy implications: Significant effort is required to improve public health messages to young people around the disease.

Multiple deprivation

Analysis examines the extent of overlaps amongst children aged 7-16 between three dimensions of deprivation: being materially poor, missing out education and lacking access to safe drinking water.

- Just 4 percent of Tajik children aged 7-16 are disadvantaged on all 3 dimension – accounting for around 70,000 children. But 32 percent are both materially poor and have poor access to clean water – around 550,000 children and just 17 percent are not deprived in any of the three dimensions.
- Parental education plays a key role
    - children of highly educated mothers are almost 3 times more likely to be 'not deprived' on any dimension than if the mother that had a primary or lower level of education.
    - children with father with higher education are as much as 8 times more likely of not being deprived in any dimension.

- Place of residence appears to be a strong determinant of the likelihood that a child experience multiple forms of deprivation, with children living in rural areas being almost 4 times as likely to experience at least two forms of deprivation than children living in urban areas.
- Father's work status was not significant in any of the regressions, confirming the weak association between paid employment and poverty found by other studies in Tajikistan (World Bank, 2005).

Policy implications: These findings confirm those in previous sections that place is important. Better data is required on the geography of child poverty in order to target interventions. However household characteristics are also significant. The important role of parental education in reducing the risk of poverty highlights the intergenerational transmission of poverty but also serves to remind us that investing in a child's education can help break the cycle of poverty.

The analysis of child nutritional status, access to health care and education all highlight the urgent need for the Government to invest in key basic social services. Public spending on education constituted just 2.8 percent of GDP in 2004, whilst public spending on health care constituted just 1 percent of GDP. Without significantly increasing this investment children will continue to be deprived of the opportunity to develop to their fullest potential and the country will be deprived of the opportunity of a better educated, healthier, more socially integrated future labour force.

In addition to better basic social services, urgent action is also required to combat child labour and reduce child violence and abuse. This requires active enforcement of existing legislation along with new legislation and greater public awareness of these issues. The state must take the lead in recognising children's inherent rights. Only then will changes filter down through society.

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1. INTRODUCTION

1.1 INVESTING IN CHILDREN, INVESTING IN THE FUTURE

In 2000 the World Bank produced its first Poverty Assessment for Tajikistan and this was followed in 2004 by a Poverty Assessment Update (PAU) (World Bank 2000, 2005). Although Tajikistan remained the poorest country in the region, with 64 percent of the population in 2003 living on less than US$2.15 per day at purchasing power parity (PPP), the PAU showed that poverty rates have dropped significantly since 1999, when four in every five people were living in poverty. The decline in poverty has primarily been the result of positive economic growth rather than explicit government intervention; over the period 1998 to 2005 economic growth averaged around 9 percent per annum and GDP per capita expressed in US dollars increased from $690 to $1202 PPP (UNDP, 2006). However, the PAU also concluded that the benefits of economic growth have not been shared equally across the population, and the decline in poverty has been accompanied by a slight increase in inequality.

The substantial drop in poverty between 1999 and 2003 reflected three "one time" factors – the cessation of conflict, the initial impact of macroeconomic stability and the large increase in migration and associated remittances – rather than structural economic reforms, and the World Bank PAU warned that this trend may not necessarily be sustainable. In particular the report highlighted that future progress in reducing poverty is threatened by three new, worrying, trends. First, children appear to be spending less time in school. Second, the decline in material poverty has not been accompanied by an improvement in health outcomes and access to health services by the poor has deteriorated. Third, regional issues, particularly with neighbouring Afghanistan, have led to a rise in drug trafficking, increased domestic drug use and greater insecurity.

Tajikistan is now at a crossroads in terms of its future direction as an independent state. Strong economic growth provides Tajikistan with an opportunity to invest in its future. The first generation of children born into the new Republic of Tajikistan are now aged 15 (see Figure 1 below) and have largely missed out on the opportunity to develop to their full potential. The first years of independence witnessed a bitter civil war and a dramatic decline in GDP and government spending on health, education and other public services. Many children born in this period missed out on schooling and, with high rates of infant and child mortality, some did not survival to become teenagers. However the re-establishment of political stability combined with strong economic growth presents means that there is now an opportunity for the current generation of children to fully realize their potential. This generation represents the future human capital of the country. Children born today will be 15 in 2021. They have the potential to enter the labour force better educated, healthier, more socially integrated than in the past, with greater productivity and making a higher contribution to society. Thus how the benefits of economic growth are distributed within society over the next few years will shape these children's future and the future of the country as a whole.

Figure 1: Population Pyramids Tajikistan

Tajikistan/1991

COHORT

Pre-transition

Female
Male

Transition

Population

Tajikistan/2006

COHORT

Pre-transition

Female
Male

Transition

Today

Population

Tajikistan/2021

COHORT

Pre-transition

Female
Male

Transition

Today

Population
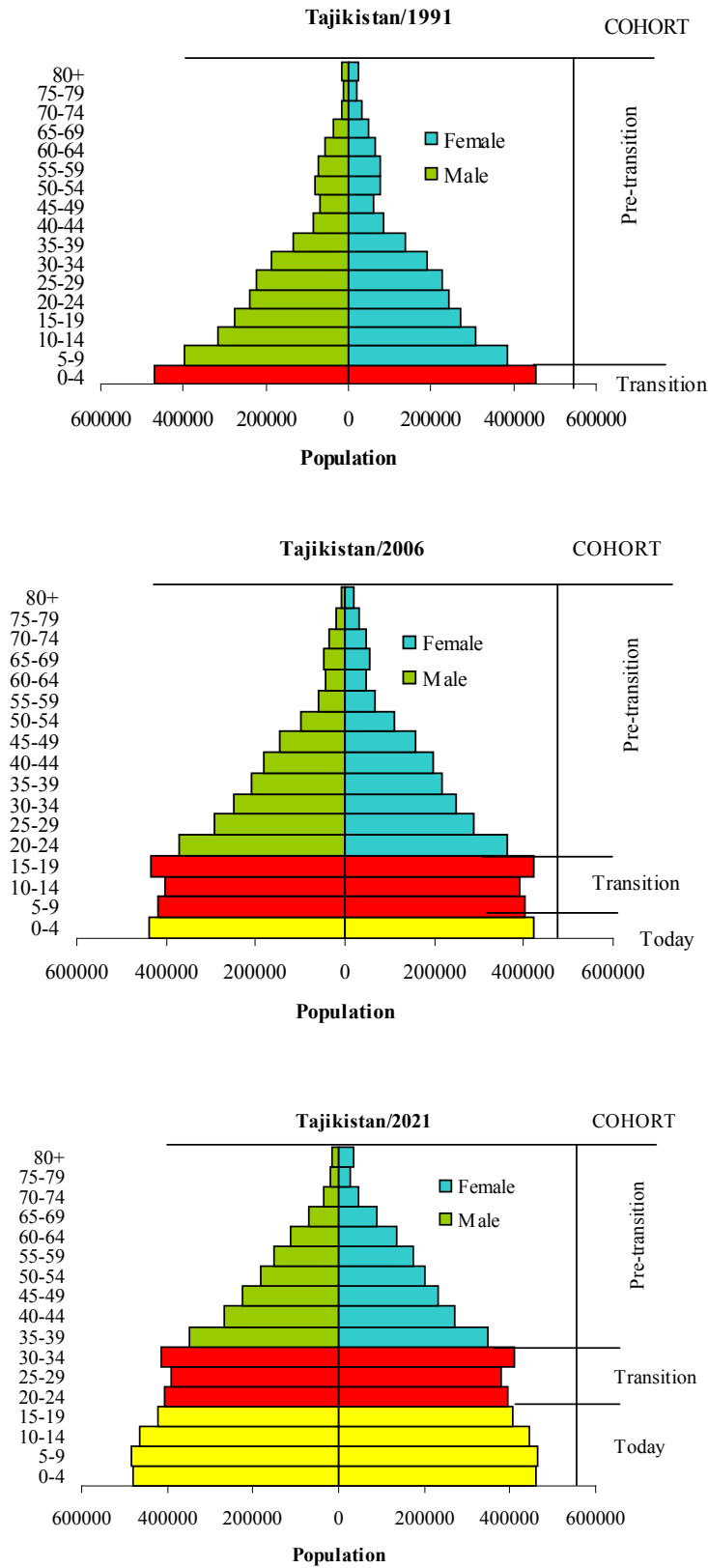
Source: U.S. Census Bureau, International Data Base.

This report presents empirical analysis of the most recently available survey data to assess the living conditions and well-being of children in Tajikistan. By focusing on children, the report provides an alternative lens through which to assess the benefits of recent economic growth and highlights the challenges facing the state, community and family face in achieving progress towards a more just society.

1.2 CONCEPTUALISING CHILD POVERTY

Given this report's focus on children, it is important to outline what is meant by child poverty. Over the last two decades there has been widespread acceptance of the view that poverty is more than a lack of material resources; material resources are necessary but not sufficient to escape poverty. In the word of Amartya Sen (1999) 'income is only a means to reduce poverty and not the end of it'. The Copenhagen summit in 1995 set out a general definition of poverty that recognised that human development goes beyond purely economic factors. Absolute poverty was defined as:

> *"a condition characterised by severe deprivation of basic human needs including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also access to social services." (para 19, Chapter 2, UN 1995).*

Adopting a **human development approach** to child poverty broadens the concept of deprivation away from simply looking at material resources to explicitly taking into account of *capabilities* i.e. 'what people can do'. Capabilities are mediated by the opportunities available and the choices people face. Thus a focus on capabilities necessarily highlights the role of the broader environment - the family, the community and the state - in determining well-being.

Well-being is also a reflection of individual's rights and responsibilities. The Convention on the Rights of the Child (CRC) (UN 1989) offers a useful framework for conceptualising child poverty. The CRC sets out the basic human rights that children everywhere have: the right to survival; to develop to the fullest; to protection from harmful influences, abuse and exploitation; and to participate fully in family, cultural and social life. **Child well-being can be thought as the realisation of these rights, whilst child deprivation, or child poverty, results from the denial of these rights** (Bradshaw, Hoelscher and Richardson, 2006).

Taking a **rights approach to child poverty**, with its emphasis on obligations and accountabilities, highlights the role played by the family, the community and the state in facilitating children to realise their full potential. Figure 2 illustrates the how different factors influence children's well-being, emphasising the inter-relationship between all the different factors and how one level cannot be understood in isolation from the others. Young children are highly dependent on a nurturing family environment but also require access to safe water and health care services as well as adequate economic resources. Older children interact with the education and judicial system but again this is mediated by the family and the community. The figure also reminds us of the importance of the overall policy environment and legal framework in determining child well-being. In particular, child deprivation may arise due to the failure of the state to provide children with the minimum standards to guarantee their rights to survival, health and development (Sabatini and Alexander, 2004).

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Figure 2: Influences on child well-being
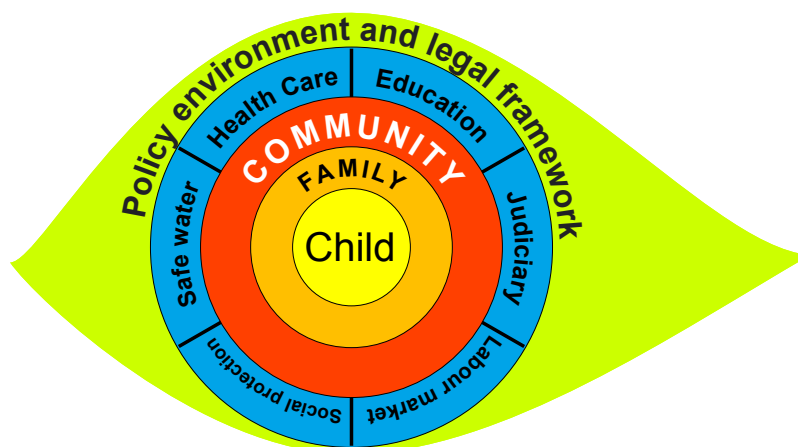
As child rights are multi-faceted, taking a child rights approach to child poverty demands a multi-dimensional approach to its measurement. The empirical indicators discussed in this report include both *economic* measures of poverty based on monetary measures, *and* a range of outcome measures reflecting the health and survival and the education and personal development of children, including exposure to the risk of violence and risky sexual behaviour (see box below).

Box 1: Measuring child poverty

DOMAIN	INDICATORS
Material poverty	percentage of children living below $2.15 PPP
Survival	Infant mortality rate, Under five mortality rate
Nutrition	percentage of children 'stunted', 'wasted' or 'underweight'
	Breastfeeding patterns
	Access to safe drinking water
Health	Self-reported morbidity
	Access to health care
Education	percentage of children in early childhood care and education (ECCE) programmes
	Enrolment in basic education
	Enrolment in post compulsory education
Risk and safety	Child labour
	Exposure to violence
	Knowledge of HIV

Using the CRC as the normative framework for conceptualising child poverty also has implications for how any definition of child deprivation or child poverty is operationalised. Most analyses of poverty take the household as the unit of analysis. However the principle of '*the best interest of the child'* (article 3) implies a child focus and thus in our study of child poverty in Tajikistan the unit of the analysis is the child. The CRC emphasis on non-discrimination (article 2) further highlights the need to examine the situation of excluded groups of children. Therefore, wherever possible, data for key outcome indicators in the report are disaggregated by age, gender, ethnicity, area of residence and family socio-economic background. The principle of '*respect for the view of the child*' (article 12) acknowledges the importance of taking children's opinions into account. Thus where possible the empirical analysis is complemented by the views of children themselves, collected during qualitative fieldwork conducted in Tajikistan in 2005.

Box 2: Sources of data on child poverty in Tajikistan

During the last five years, there have been a number of nationally representative household surveys conducted by the State Statistical Committee of Tajikistan. These surveys provide valuable information on a range of indicators of child well-being. This report presents original analysis from two of these surveys: the 2003 Tajikistan Living Standards Survey (TLSS) and the 2005 Multiple Indicator Cluster Survey (MICS). Where appropriate comparisons are also made with previous surveys, including the 1999 TLSS and 2000 MICS.

The **2003 Tajikistan Living Standard Survey** collected detailed information from 26,141 individuals living in 4,156 households on a range of topics including income, expenditure, education, health, food security, employment and other livelihood strategies. The data from the 2003 TLSS is used here to provide estimates of material child poverty and child food security, and to investigate the factors influencing school attendance, use of health services and youth employment.

The **2005 Multiple Indicator Cluster Survey** is designed to provide estimates on a large number of indicators on the situation of children and women. The survey interviewed 10,243 women aged 15-49 and collected information on 4,273 children under 5 living in 6,684 households. The data collected in the MICS is used hereto provide estimates of child nutritional status, school and pre school attendance, child labour, child abuse, and information on young adults use of contraception and knowledge of HIV/AIDs.

In addition to the two surveys, the report also makes use of the **Socio-Economic Atlas of Tajikistan**, produced in collaboration with the State Statistical Committee of Tajikistan in 2005 (see Baschieri and Falkingham, 2005). This provides estimates of infant mortality at the raion level and estimates of community poverty at the jamoat level

In order to examine the relative role played by individual, household and community factors in determining key child outcomes such as school attendance and nutritional status selected **spatial data**, such as quality of local schools and local land cover, is linked to the **TLSS and MICS survey data** using geographical information systems (GIS). To our knowledge, this is the first time these innovative data matching techniques have been employed in Tajikistan. These unique **linked datasets** offer the op-

portunity to use sophisticated statistical techniques such as multi-level modeling to explore the importance of where the child lives as well as who its parents are and its own characteristics. For ease of presentation, the tabular results of the complex statistical models are presented in the appendix whilst the main findings are discussed in the body of the report.

The empirical analysis is complemented by the voices of children themselves. A **qualitative study of child poverty** was conducted with the support of UNICEF in 2005. Here, vignettes are drawn from focus group discussion held across Tajikistan in Autumn 2005.

1.3 STRUCTURE OF THE REPORT

This report is comprised of five major parts. Section 2 presents evidence on the extent of material poverty amongst children in Tajikistan and explores the factors that are associated with being poor. The appropriateness of the 'standard' household definition of poverty widely used by economists and other analysts, especially its relevance for children, is also discussed and alternative definitions explored. Section 3 then examines trends in key health outcome measures including child survival and nutritional status. This section includes an in-depth analysis of the correlates of child malnutrition. Education and the factors associated with enrolment are discussed in Section 4. Section 5 focuses on risk and safety and a child's right to protection from harmful influences, abuse and exploitation. Recent evidence on levels of child labour and child abuse is presented along with data regarding knowledge of HIV/AIDS and its transmission mechanisms. The extent of multiple deprivation amongst Tajik children is examined in Section 6 along with the factors associated with such deprivation. Finally, Section 7 examines mechanisms to alleviate child poverty and draws out the implications of the reports findings on the various dimensions of child poverty for these mechanisms.

2. A PROFILE OF CHILD POVERTY IN TAJIKISTAN

Tajikistan has the youngest age structure amongst the countries represented in the UNICEF region of Central and Eastern Europe and the Commonwealth of Independent States; children aged under 17 comprise nearly half the population (48%) (Figure 3). Although the birth rate in Tajikistan has fallen from 39 births per 1,000 population in 1989 to 27 in 2004, the total fertility rate remains the highest in the region. With an average of 3.68 live births per woman in 2000 the youthful age structure is likely to continue into the future.

Figure 3: Share of the population under 17 years old.
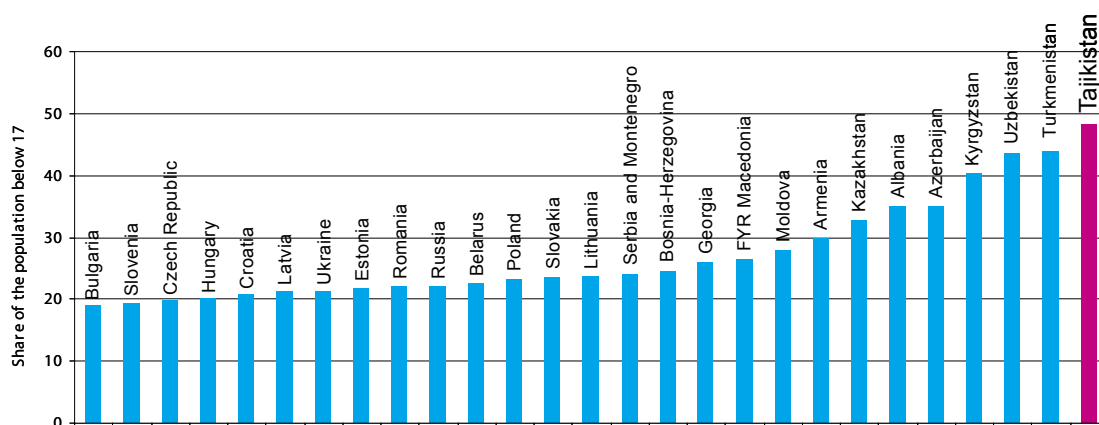
Fertility levels vary across the Republic, being higher in Khatlon and the Garm valley and lower in GBAO. These differences are reflected in the spatial patterns of the percentage of the population aged under 5 and under 17 illustrated in Figures 4 and 5.

Figure 4: Percentage of population under 5 by jamoat.

>= 55
>= 50 & < 55
>= 45 & < 50
< 45

1 : 2,500,000
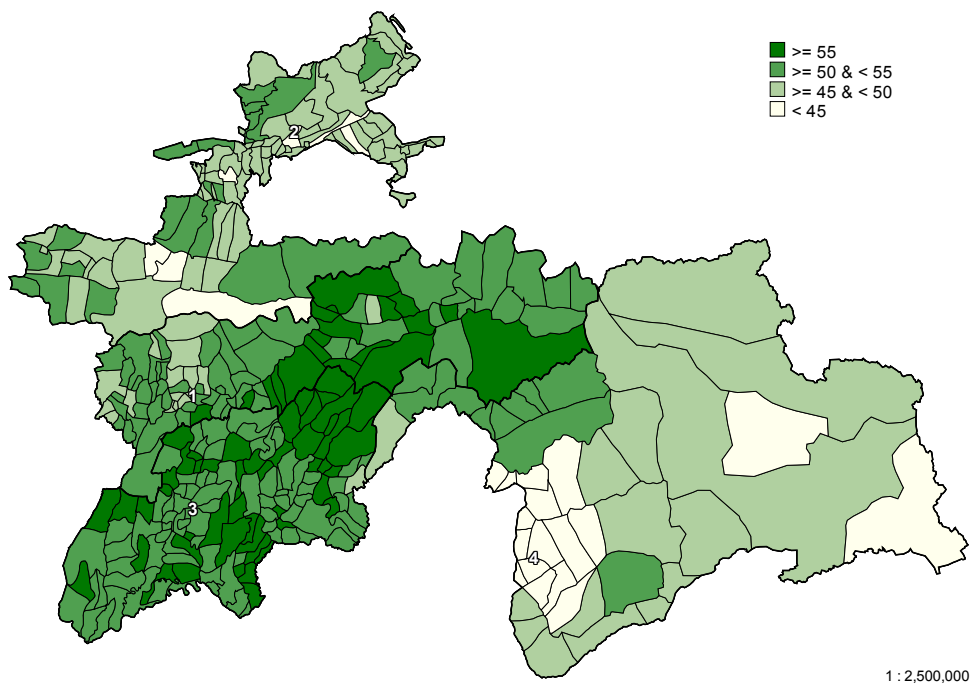
Figure 5: Percentage of population under 17 by jamoat.

>= 20
>= 17.5 & < 20
>= 15 & < 17.5
>= 12.5 & < 15
< 12.5

1 : 2,500,000
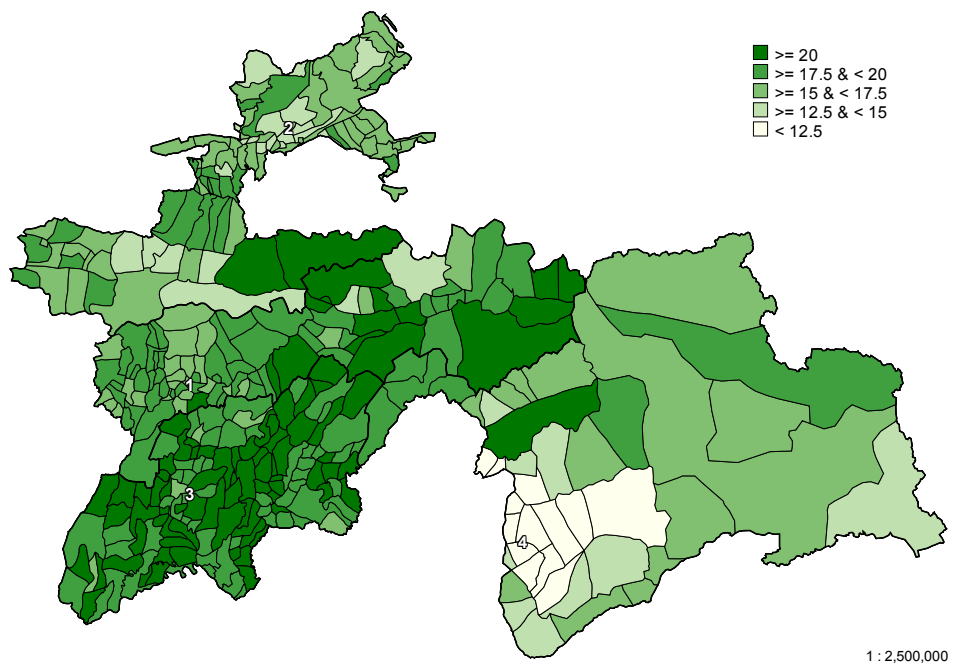
Note: Major cities 1.Dushanbe, 2.Khujand, 3.Kurgan-Tyube, 4.Khorugh

Source: Socio-economic atlas of Tajikistan 2005

2.1 THE LEVEL AND EXTENT OF MATERIAL CHILD POVERTY

There is no officially sanctioned or universally accepted poverty standard within Tajikistan. The main analysis in the recent World Bank Poverty Assessment Update defined people as poor if they lived in households where per capita household expenditure was below 2.15$ PPP a day[1]. This is equivalent to a poverty line of 47.06 Somoni per month. Using the World Bank definition of poverty, child poverty is significantly higher than the overall poverty, with 66 percent of children aged under 18 defined as poor, compared with 61 percent of adults (Table 1).

Figure 6 shows the poverty rates for different groups relative to those of the population as a whole. A value of 0 means that children face the same risk of being poor as other people. A value higher than 0 means that the risk for children is greater than average, implying that children are over-represented amongst the poor. Girls are just under six percent more likely to be poor than the population in general whilst boys are around three percent more likely to be poor. These differences are not great in comparison to the relative risk of poverty faced by children in other countries, but nevertheless the differences are statistically significant.

Figure 6: Poverty by age and gender, TLSS 2003.
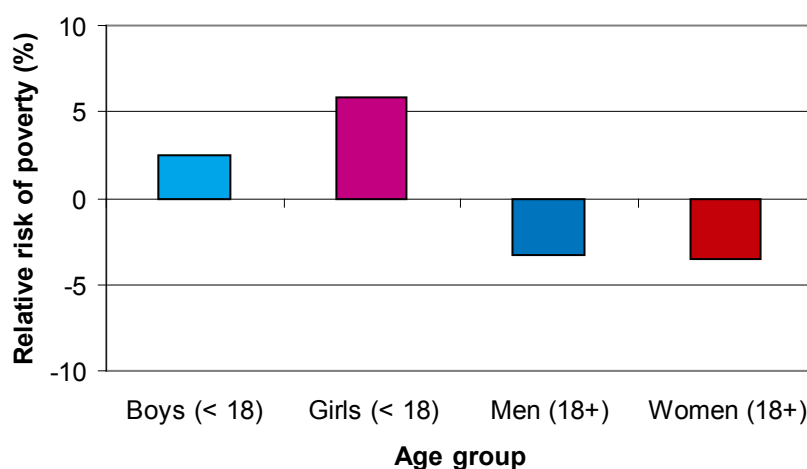
Source: authors' own analysis of TLSS 2003.

Levels of child poverty vary by age, with younger children being more likely to be poor than older children. For example, 69 percent of children under age six are poor compared with 63 percent of 11-14 year olds and 61 percent of 15-17 year olds (Table 2). The likelihood of a child being poor increases significantly with the size of their household (Table 3). Figure 7 shows that just under a quarter of children living in a household with just two people (i.e. themselves and one other person) are poor compared with nearly three-quarters of children living in a household with seven or more. In part this is a function of the way poverty is defined. Using a per capita measure implies that there are no economies of scale to living in a large household and so larger households tend to have lower per

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1   *See Falkingham and Klytchnikova (2004) for an exploration of a range of alternative measures.*

capita expenditures than smaller ones. However it also reflects other differences such as the fact that smaller households tend to be located in the larger cities and that their household heads may be better educated. These factors are further explored below.

Figure 7: Child poverty by household size, TLSS 2003.
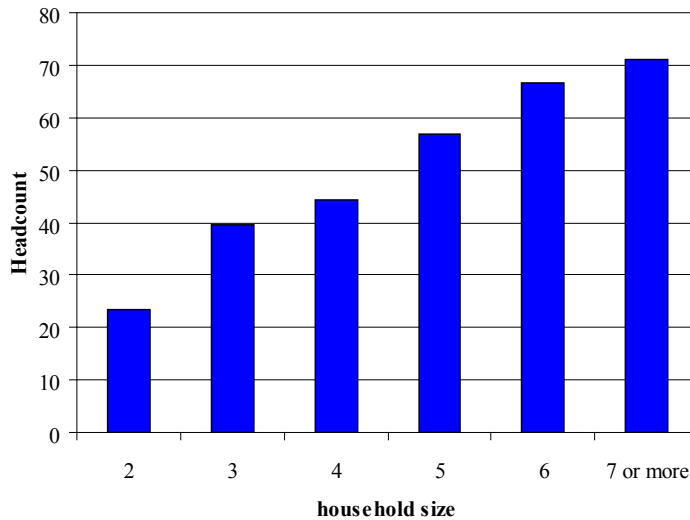
Source: authors' own analysis TLSS 2003.

2.2 THE SPATIAL DISTRIBUTION OF CHILD POVERTY

The chances of a child being poor varies according to where they live (Figure 8). Rates of child poverty are highest in GBAO and Khatlon, and lowest in RSS and Dushanbe. However even in rural RRS around half of all children aged 17 and under are poor. Figure 9 shows the spatial variation in the risk of poverty in more detail, drawing on previous research conducted as part of the World Bank funded poverty mapping exercise in Tajikistan in 2005 [2]. Jamoats with a headcount poverty rate statistically significantly below the national average are shown in green whilst those jamoats where poverty is above the national average are shown in red. The map is for rural areas only. From the map, it is clear that there is significant variation *within* regions with pockets of poverty in areas of relative affluence and vice versa, highlighting the dangers of broad geographic targeting for poverty alleviation programmes and the need for better and more detailed spatially disaggregated data.

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2   Data from the 2003 TLSS are used to simulate estimates of household welfare in the 1999 Census of Tajikistan using the poverty mapping methodology developed by Elbers et al (2002). These results are then aggregated to produce estimates of poverty at the community level. For more details see Baschieri and Falkingham (2005).

Figure 8: C   *LSS 2003.*
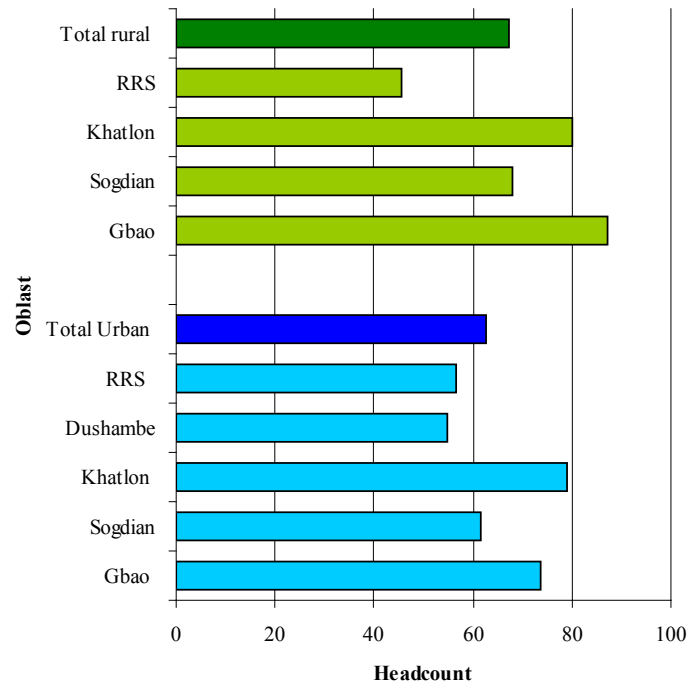
Source: authors' own analysis TLSS 2003.

Figure 9: Variation in rural poverty by jamoat.
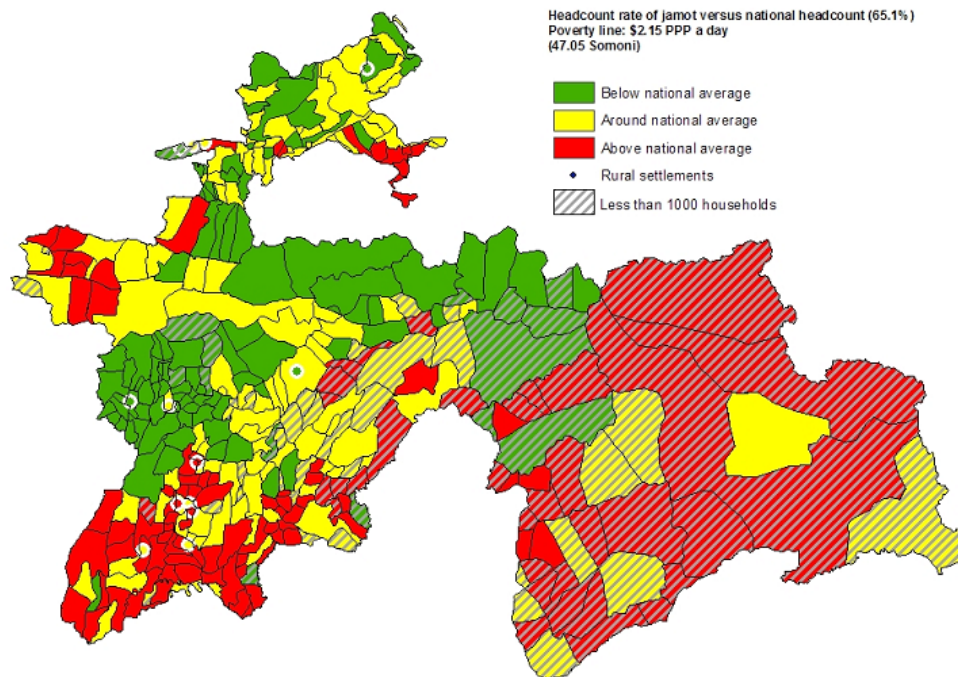
Source: authors' own analysis TLSS 2003 and 1999 Census of Tajikistan.

2.3 CHILD POVERTY AND PARENTAL SOCIO-ECONOMIC STATUS

As is the case in most countries in the world, child poverty varies with the level of parental education with children of better educated parent's being less likely to be poor (Table 4). Figure 10 shows that over seven out of every ten children whose mother only attended primary school are poor compared with four in ten children whose mother attended higher education. The differentials by father's education are less marked, but children whose father attended higher education (53%) have a significantly lower risk of being poor than those whose father attended secondary school only (69%).

Figure 10: Child poverty by mother's education's level, TLSS 2003.
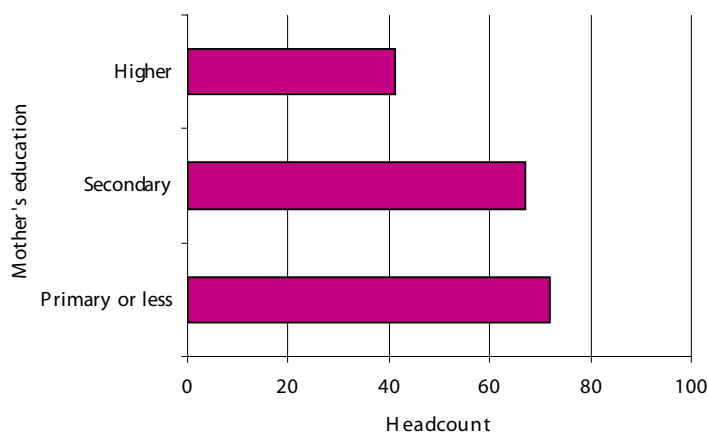
Source: authors' own analysis TLSS 2003.

The risk of being poor also varies according to parental work status, with children whose mother and father are both in work having a lower risk of poverty than those where neither is working (Table 4). However the differences are not statistically significant, confirming previous findings that employment is not necessarily an effective means of protection against poverty in Tajikistan. In many sectors, particularly agriculture and the public sector, wages remain low and are not sufficient to lift families out of poverty. Nevertheless the data do point to the fact that children living with working parents are better off than those living with workless parents.

2.4 THE CORRELATES OF CHILD POVERTY

So far, we have examined the relationship between poverty and other characteristics separately. However in reality many of these characteristics are inter-related. For example, household size may be smaller in urban areas and children living in urban areas may also be more likely to have better educated parents or parents in work. In order to

investigate which factors remain significant determinants of child poverty once other characteristics are controlled for, a multi-variate logistic regression was carried out. The results for urban and rural areas are presented in Table 5, whilst the results for separate models for each oblast, including Dushanbe and RRS, are shown in Table 6.

The analysis highlights that

- Child poverty status varies by age, with younger children – particularly those aged under 3, being more likely to be poor than older children.

- There are strong regional disparities in child poverty, even after controlling for other factors.

- In rural areas, children of higher educated mothers are less likely to be poor, whereas in urban areas the educational status of the father appears to be more important in reducing the risk of child poverty.

- In Dushanbe, children with both parents not working face a 25 percent higher probability of being poor than if at least one parent is working. This effect does not appear in other regions, reflecting the fact that families are more reliant on the cash wage economy in Dushanbe than elsewhere. Thus although overall poverty is lower in Dushanbe than for the country as a whole, care must be taken not to overlook children living in socially excluded households where their risk of poverty may be substantial.

2.5 HOW APPROPRIATE IS THE STANDARD HOUSEHOLD DEFINITION OF POVERTY FOR CHILDREN?

Virtually all poverty assessments carried out by the World Bank use the household as the unit of analysis for defining who is poor or not. This involves two important assumptions. First, it assumes the household operates as a single unit, implying the existence of a single household welfare function reflecting the preferences of all its members. However as Chiappori et al.(1993:4) suggest, this is "by no means an innocuous assumption" as individual household members are likely to have different preferences. Secondly, it assumes that all household resources are pooled, with the result that all members are assumed to enjoy the same level of welfare. However, sociological and anthropological studies show that this is rarely the case. In particular, men are found to be more likely to retain part of their income and "spend some of their income on goods for their personal consumption. By contrast, women are believed to be more likely to purchase goods for children and for general household consumption. Research shows that an increase in the women's share of cash income in a household increases the share of the household budget allocated to food (Garcia 1990; Hoddinott and Haddad 1995; Ulph 1988) and reduces the amount allocated to items such as tobacco and alcohol.

If resources are not equally allocated within the household, then poverty measures based on will be sensitive to intra-household inequality. Estimates of poverty amongst women, men and children will vary according to how resources are allocated within the household. If, in reality, the income earned by household members is not shared

equally then standard analyses may over- or underestimate the extent of child poverty. In order to explore how sensitive estimates of child poverty in Tajikistan are to intra-household inequality, a series of alternative scenarios regarding the extent of pooling of household resources are investigated3.

Scenario A shows the levels of poverty when all income is pooled and shared equally amongst all household members. The results shown in the box above are not strictly comparable with those shown in Table 1 as this analysis uses income[4] as the welfare indicator rather than expenditure and a poverty line of $1.08 a day (23.62 Somoni) rather than $2.15. This lower poverty line reflects the fact that income in Tajikistan is consistently underestimated. Nevertheless the differentials between children and adults are similar, with child poverty being about five percentage points higher than adult poverty.

How do estimates of poverty change if you vary the assumption of equal pooling of income by men and women within the household?

Using income as the welfare indicator and the $1.08 PPP poverty line	Child Poverty (%)	Poverty Amongst men (%)	Poverty amongst women (%)
Scenario A: equal sharing of all income	68.9	63.5	63.9
95 percent CI	66.2-71.6	60.8-66.3	61.2-66.6
Scenario B: all earners retain 50 percent and pool 50 percent of their wage income	77.6	52.7	66.1
95 percent CI	75.7-80.0	49.7-55.7	63.5-68.7
Scenario C: all earners retain 20 percent and pool 80 percent of their wage income	72.1	58.1	64.6
95 percent CI	69.4-74.7	55.3-60.9	61.9-67.2
Scenario D: men retain 20 percent of their wage income and share the rest; women pool all their income	71.5	57.4	66.7
95 percent CI	68.8-74.2	54.6-60.2	64.1-69.3

Source: authors' own analysis TLSS 2003.

3   Full results of this analysis are presented in Falkingham, J. and Baschieri, A. (2005) Gender and poverty: how we can be misled by the unitary model of household resources – the case of Tajikistan. Southampton, UK, Southampton Statistical Sciences Research Institute, 21pp. (S3RI Applications and Policy Working Papers, A04/21) http://eprints.soton.ac.uk/13984/

4   Within the TLSS, total household income is comprised of: total wage employment, social assistance, remittances, rent obtained from land, income from farm activities, income from family business, income from non-farm enterprise, and imputed income from the consumption of home production and gifts of food received.

Scenario B shows what would happen to the levels of poverty if both men and women decide to retain 50% of their wage income and pool 50 percent. Income from all other sources is still assumed to be pooled. This scenario results in an increase in absolute poverty rates amongst women and children, and a fall amongst men. The changes in the welfare position of men and women are sufficiently large to result in a statistically significant gender gap in the risk of poverty. These gender differentials directly reflect the differentials in wage income between men and women in the household, which in turn reflect the gendered division of labour within the household, with women being more likely to engaged in unpaid family work. Children are the hardest hit, with child poverty rising by 9 percentage points.

The assumption of individuals pooling only half their wage income is a strong one. In reality in an agricultural society like Tajikistan, where extended families with large numbers of children are the norm, it is unlikely that men or women would want to, or be able to, retain as much as half their wage income for their own purposes. A more realist scenario is one where women and men retain one-fifth their wage income and pool four-fifths. Under this stronger pooling scenario (scenario C) the gender gap in the likelihood of being poor is reduced from 13 percentage points to 7 percentage points. By pooling a greater share of their income men experience a heightened risk of poverty, whilst women experience a slight fall. The greatest gainers, however, are children with poverty rates falling from 78 percent, under the moderate pooling assumption in Scenario B, to 72 percent, under the stronger pooling assumption in Scenario C.

Both scenario B and C assume that mothers do not pool their 'retained' income with their children. However studies have suggested that 'women are generally more likely to purchase goods for children and general household consumption' (Haddad et al. 1994). An alternative scenario is to assume that women prioritise the welfare of their children and pool all their resources with their children. Thus, under *Scenario D* men retain 20 percent of their income and share the rest whilst women pool all their income. Applying this alternative scenario results in a further fall in child poverty to 71.5 percent, and a further widening of the poverty gap between men and women.

All the alternative scenarios presented still assume that all non wage household income (such as home production) is equally shared and thus represent only a small step away from the standard model of equal sharing. Nevertheless, the results highlight the sensitivity of overall levels of child poverty to these alternative assumptions and demonstrate that standard analyses of material poverty are likely to underestimate the levels of poverty amongst children and women. More qualitative research is necessary to unlock the 'black box' of the household and thus improve estimates of material poverty for different household members.

One may also ask the broader questions of whether a money metric measure of poverty based on the household, regardless of the assumptions used, is the most appropriate measure of poverty for children. One factor that differentiates children from adults in their experience of poverty is the impact of the length of time spent in poverty. A year spent in poverty represents a greater fraction of a child's life than an adult's and will have a greater impact upon a child's current and future capabilities in terms of education and health. Unfortunately there is no data on the duration and dynamics of poverty in Tajikistan. However data on child nutritional outcomes may be seen as a proxy for length of time in poverty. Child nutritional outcomes are therefore examined in detail in the next section of this report.

A rights based approach to child poverty highlights that children should be considered as individuals rather than simply dependants of their parents; children who are entitled to protection; children whose capacities expand as they grow older; and children with the ability to contribute to society. The remainder of this report therefore focuses on other important dimensions of child welfare including the context of *health and survival*, including nutrition and access to health services; the context of *personal development* within Tajikistan, including access to education and entry into the labour market; and the *degree of risk* faced by children – risks such as child labour and the experience of child abuse and the risks posed by the onset of sexual relations.

3. HEALTH AND SURVIVAL

The most fundamental of any child's rights is the inherent right to life as recognised in paragraph 1, Article 6 of the Convention on the Rights of the Child (UN 1989). Infant and child mortality rates are therefore key indicators of child well-being. Article 6 also emphasizes the right to 'survival and development' and further articles highlight the need to enhance children's health through adequate nutrition, clean drinking water and preventative health care (article 24) and access to basic health care. This chapter therefore includes four sub-sections discussing the most recently available data on i) child survival, ii) child nutritional status, iii) access to safe water and sanitation and iv) children's use of health services in Tajikistan.

3.1 SURVIVAL

Survival represents the most elemental of human rights. Infant and child mortality provide clear indicators of the general health status of young children and their chance of survival and as such have been adopted as the key indicators for the achievement of the health related Millennium Development Goals (MDGs). Official statistics show an improvement in infant mortality in Tajikistan over the past decade, down from a peak of 48.4 in 1997(at the end of the civil war) to 43.6 deaths per 1,000 live births in 2003. However, recent research shows that in many countries in the CIS, including Tajikistan, official infant mortality rates appear to be much lower than those estimates from surveys that ask women about their reproductive histories (Bos et al, 2002; Aleshina and Redmond, 2005).

Estimates of infant mortality from household surveys vary (see Table 7), but suggest that actual IMR and under 5 mortality rates (U5MR) are more than twice the official figures. According to the 2005 UNICEF Multiple Indicators Cluster Survey (MICS), the infant mortality rate at the start of the twentieth century was 65 infant deaths per 1,000 live births. This represents a significant improvement from the 2000 MICS, which estimated the IMR at 89 infant deaths per 1,000 live births. Nevertheless this rate is remains high by international standards, and Tajikistan has the highest infant mortality rate in the CIS region.

The U5MR also appears to have fallen, from 126 deaths per 1,000 live births in the 2000 MICS to 79 deaths per 1,000 live births in the 2005 MICS. There is significant variation in U5MR across the country. Figure 11 shows the U5MR estimated using information from the 2000 census on children ever born and children surviving available and applying the estimation techniques developed first by Professor William Brass in the 1960s[5]. According to this data, child mortality rates vary from less then 70 deaths to over 130 deaths per 1,000 births. Low child mortality appears to go hand in hand with

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5   This method provides estimations of the probability of dying between birth and exact age x, from the population of children dead among those ever born by women in different age groups by allowing for the duration of exposure to the risk of dying.

low poverty, with the correlation coefficient for the two measures at the raion level being 0.34. However there are some districts which are 'good health performers' given their level of community poverty. For example, Nosir Khusrav in the south-western corner of Khatlon has above average poverty but relatively low child mortality. Equally there are some districts which are 'poor health performers'. For example, Varzob in RRS has below average poverty, but experiences U5MR of above 130 per 1,000. This shows the value of putting together a range of indicators at the local level for planning and prioritising of services.

Figure 11: Child mortality rate by raion
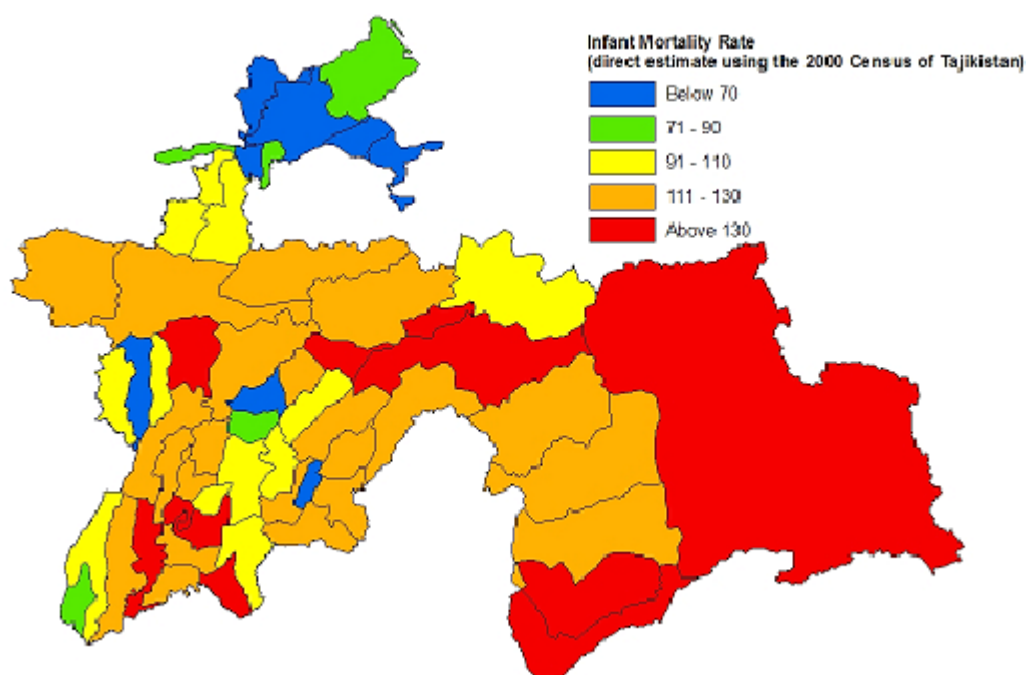
Source: authors' calculation using the 2000 Census of Tajikistan.

The spatial picture of infant mortality based on census data is generally in line with the UNICEF verbal autopsy study which suggested that infant mortality was lowest in the north (Sogd and RSS) and highest in the south (Khatlon) and with the 2005 MICS (which found an IMR of 50 in Dushanbe, 81 in Khatlon, 61 in Sogd and 47 in RRS). However the relatively high rates in GBAO from the Census are surprising, and conflict with the results from the 2005 MICS which suggests a much lower rate of 46. more work is needed to disentangle this, particularly given that GBAO also experiences relatively poor outcomes on other indicators of child health such as nutritional status (see Figure 14 below).

3.2 CHILD NUTRITIONAL STATUS

Every child has the right to have access to safe and nutritious food, the right to adequate food, and the right to be free from hunger. As well as good nutrition being a basic right in itself, sound nutrition leads to improved life chances for infants and children and increases the likelihood that children will complete primary education and benefit from the learning experience. Conversely poor nutritional status early in life may have long-term developmental consequences. Malnutrition, or hunger, is therefore an important indicator of the presence of severe child deprivation.

Figure 12 and Table 8 present information for the three standard indices of physical growth:

- height-for-age – percentage of children severely or moderately stunted, reflecting chronic under nutrition;
- weight-for-height – percentage of children severely or moderately wasted, reflecting acute or recent malnutrition; and
- weight-for-age – percentage of children severely or moderately underweight, being is a good overall indicator of the child population's nutritional health.

In a healthy, well-nourished population of children, it is expected that approximately 2.3 percent of children will fall below two standard deviations of the reference population and will be classified as stunted, wasted or underweight. The World Health Organization considers the severity of malnutrition to be 'high' when the prevalence of stunting exceeds 30 percent and wasting reaches 10 percent.

It is clear from Figure 12 that the nutritional status of children in Tajikistan is a major cause for concern. According to data from the 2005 MICS, 17 percent of children under age 5 in Tajikistan are underweight compared with 11 percent in neighbouring Kyrgyzstan, 12 percent in Turkmenistan and 8 percent in Uzbekistan. Seven percent of young Tajik children are wasted and 27 percent are stunted.

Countries' rankings in Figure 12 generally follow their rank in GDP, highlighting the link between low income and poor health. Reducing child malnutrition is a key MDG. Achieving this will require a concerted effort by Governments to improve material livings standards. Without such an effort it is likely that rates of malnutrition will increase, with a concomitant increase in morbidity as these children enter young adulthood.

Figure 12: Percentage of children under age five severely or moderately undernourished

Percentage of children under five severely or moderately wasted (low weight for age)

Percentage of children under five severely or moderately wasted (low weight for height)

Percentage of children under five severely or moderately stunted (low height for age)

Source: WHO Global Database on Child Growth and Malnutrition.
http://www.who.int/nutgrowthdb/ and DHS.

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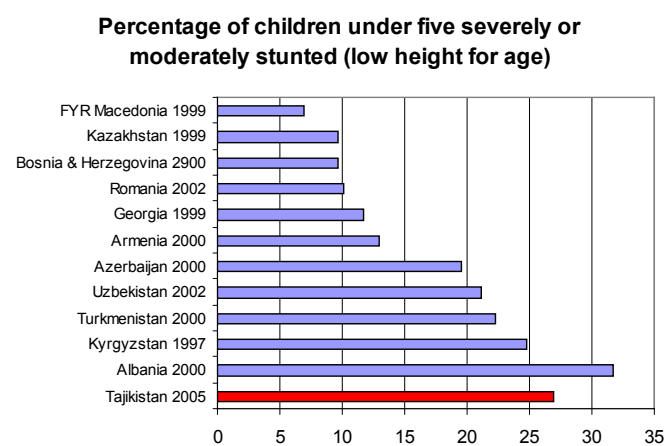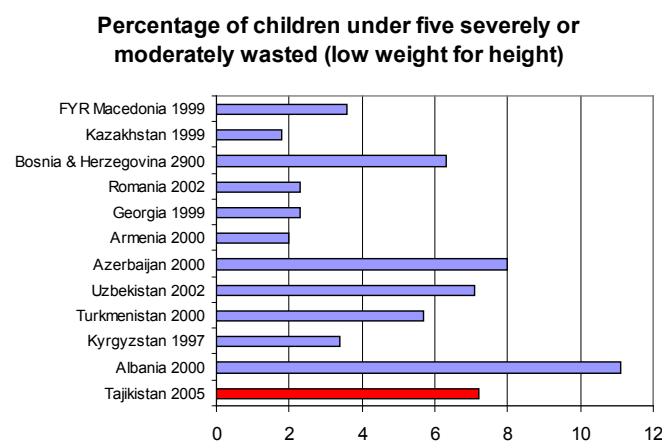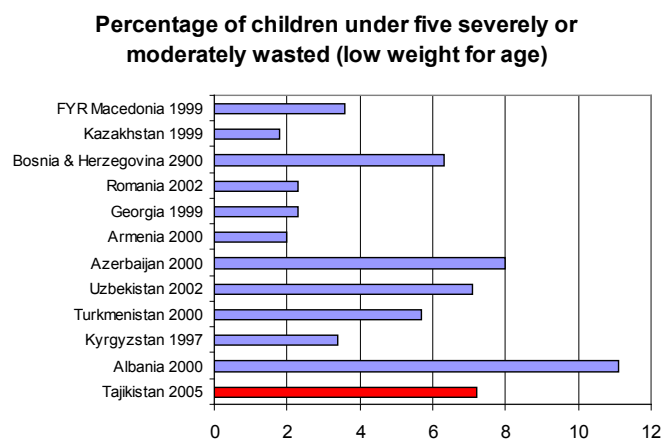
3.2.1 Trends over time: is child nutritional status improving or getting worse?

There is some evidence that families' food consumption has been declining over time. 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.   The TLSS 2003 shows that an even higher proportion of the population (some 85%) consumed just one to two main meals per day. Most worrying from a nutritional point of view is the rise in the proportion of households claiming to eat just one meal a day from 13 percent in the 1999 TLSS to 46 percent in 2003. Over half of the poorest households reported that they ate an average of one meal or less a day, and only 5 percent ate three or more. There is no information on how feeding practices vary *within* the household and whether children eat more frequently than adults. However young children should be fed at least 3-5 times a day to maintain good health.

In order to assess whether the nutrition status of children in Tajikistan has improved or deteriorated over the past few years, data on child nutritional status collected in 2003 and 2004 by Action Against Hunger (AAH) is compared with data from the 2005 MICS (see Tables 9 and 10). The data from the two sources are not directly comparable as the AAH survey collected data for children aged 6-59 months whereas the 2005 MICS collected data for children aged 0-59 months. Therefore Figure 13 shows the percentage of children who are suffering from chronic (stunting) or acute (wasting) malnutrition for children aged 6-59 months only. Looking at indicators of chronic malnutrition, the situation appears to have improved somewhat, with 28 percent of children stunted in 2005 compared with 31 percent in 2003. However, chronic malnutrition is still high compared with other countries in the region and has been relatively stable over time.

Figure 13: Percentage of children aged 6-59 months who experience severe or moderate stunting or wasting
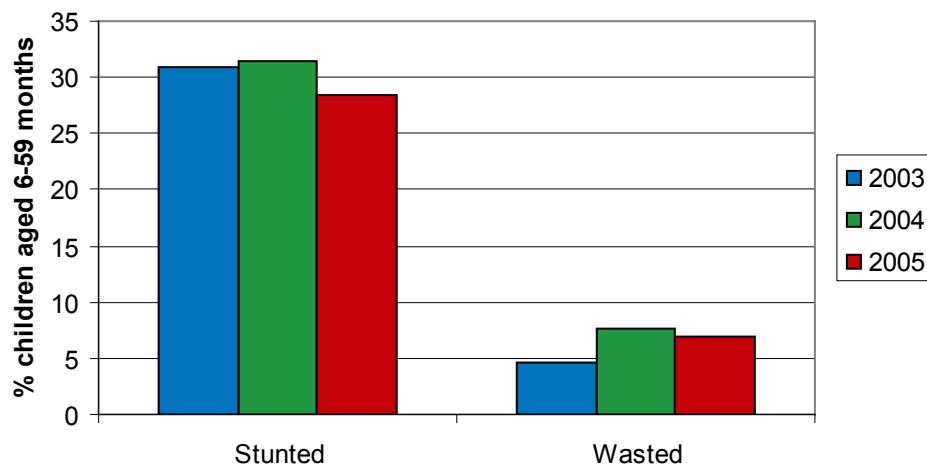
Source: Action Against Hunger 2003 and 2004 Nutritional Survey, UNICEF MICS 2005.

Wasting is a better measure of short term changes in nutritional status. Looking at this indicator, the level of child malnutrition appears to have worsened over time, with 5 percent of children wasted in 2003, rising to 7 percent in 2005. The situation appears to be particularly severe in the Kugan Tuppe area of Khatlon, with an increase of 100 percent in the proportion of children wastted between 2003 and 2004. AAH cites the drop in harvest yield between 2003 and 2004 as one possible explanation for the increase in acute child malnutrition[6]. The deterioration in acute malnutrition is associated with a lack of access to adequate food stuff which in turn is associated with a lack of access to land and insufficient purchasing power to buy food. A decline in household food security during the middle part of 2003 was also reported by Oxfam (2004) in their report on *Community Situation Indicators in Khatlon*. Thus there is a clear link between material poverty and child health outcomes.

3.2.2 Differentials in child nutritional status

Analysis of the UNICEF 2005 MICS confirms the findings from other surveys regarding significant spatial variation in child nutritional status in Tajikistan (Figure 14). Child nutrition is worst in Khatlon, with this oblast having the worst outcome measures on all three indicators - stunting, wasting and underweight. GBAO appears to be second ranked, although interesting both RRS and Dushanbe have higher rates of wasting i.e. acute malnutrition. This fits with the findings of the World Bank PAU that urban poverty was not falling as sharply as rural poverty and that poverty in Dushanbe experienced the least decline. It also fits with our earlier finding that where both parents are not in paid employment, children in Dushanbe may be at higher risk of poverty.

Figure 14: Percentage of children aged 0-59 months who experience malnutrition by region, MICS 2005
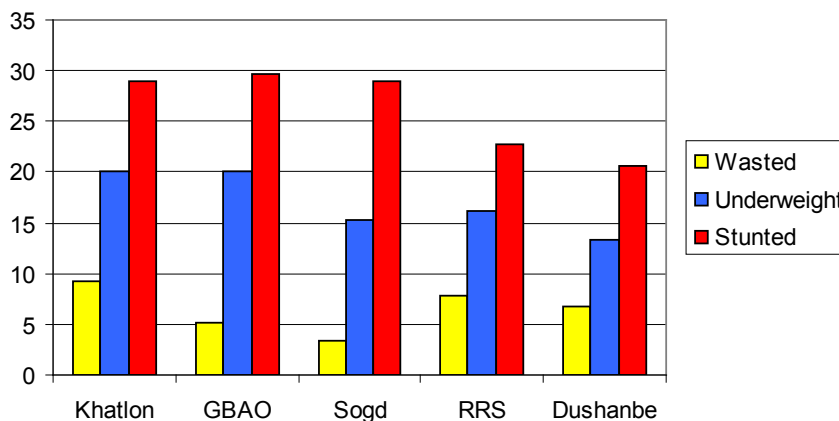
Source: Authors' own analysis UNICEF MICS 2005.

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6   FAO in an unpublished report on Crop Assessment (2004) reported that there was an aggregated drop of 17 percent in harvest yield between 2003 and 2004.

There is little difference in child nutritional status by urban/rural residence. There are however, significant differences found by children's age, with children between 1 and 2 years of age experiencing the highest rate in all the three indicators (Table 11). There also appear to be significant difference in the proportion of children stunted by mother's education, with children of mothers with higher education being significantly less likely to be stunted than children of mothers with lower education (19% v 26-28%). However, this effect it is only found for the proportion of children stunted; there are no statistically significant differences in the other two indicators of child nutrition by mother's education (see Table 12).

There is a clear link between child nutritional status and household 'wealth' (Table 13 and Figure 15). The MICS does not collect data on household incomes or expenditures. Therefore, within the MICS, household welfare is measured using a 'wealth index' based on ownership of assets and other household characteristics. Households are then ranked according to this index with those living in the bottom 20 percent being defined as poorest and those living in the top 20 percent being defined as richest. Children living in the poorest households according to this measure are more likely to be found to be underweight and stunted.

Figure 15: Percentage of children aged 0-59 months who experience malnutrition by household socio-economic status (wealth quintile), MICS 2005
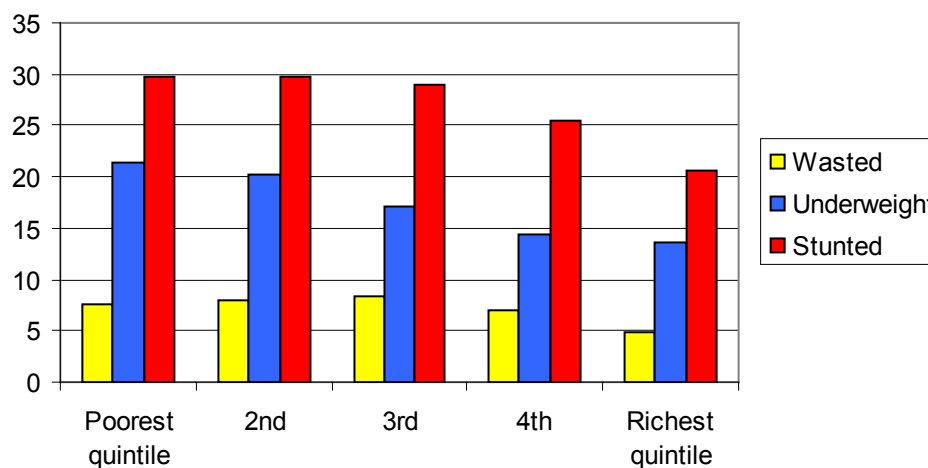
Source: Authors' own analysis UNICEF MICS 2005.

One would hypothesize that children living in a household that has access to land or own livestock would have a better nutritional status as the household could access to food product from their own production. Currently an estimated 70 percent of rural households have a kitchen garden which augments their diets, and forms an important part of their subsistence coping strategy. However, as Table 11 reflects, the produce

yielded is often inadequate to sustain a healthy diet and there are no significant differences in nutritional outcomes for children living in a household who has access to land or own a livestock (Table 15). As Micklewright and Ismail (2001) suggested for Uzbekistan, this could be due to the fact that agricultural work requires also women to work, having an implication for the quality of care accessible to children. Households who sell food may also do so to buy manufactured goods at the expenses of household consumption.

There is, however, a significant difference in the percentage of children underweight according to whether a household has access to an improved source of drinking water[7]; those children living in a household with access are significantly less likely to be underweight than children living in a household that does *not* have access to an improved water source. This is not surprising as poor access to water and sanitation is associated with an increased risk of children suffering from diarrhoeal diseases, which in turn is associated with nutrition. Access to water is further examined in Section 3.3. as a welfare indicator in its own right.

Figure 16: Percentage of children aged 0-59 months malnourished by whether household has access to an improved source of water, MICS 2005
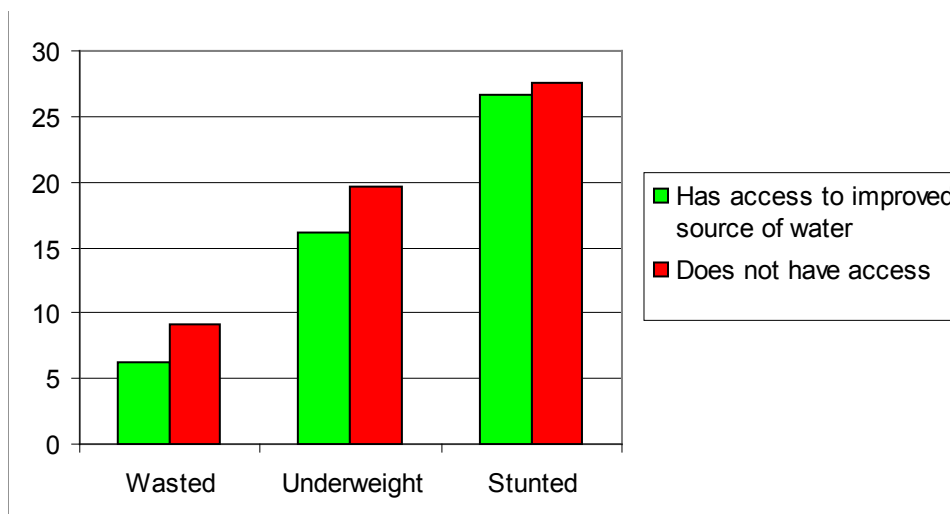
Source: Authors' own analysis UNICEF MICS 2005.

Multi-variate analysis

So far the analysis has looked at each of the correlates of child nutritional status individually. In order to highlight those factors which are associated with child nutritional status after controlling for child and household level characteristics, Table 16 presents the results of three logistic regression models – one for each outcome measure[8]. The models control for mother's education, child's age, region of residence, ethnicity,

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7   'Improved' sources of drinking water are defined as a piped household connection, public standpipe, borehole, protected dug well, protected spring and rainwater collection

8   We estimate the model with svylogit command in STATA, applying weights to adjust for oversampling.

household's access to land, household's ownership of livestock and household's access to improved drinking water[9].

Key findings include:

- There is a significant association between child nutritional status and age for all three outcome variables, although the pattern varies according to the indicator.

- The likelihood of a child being underweight (low weight for age) or wasted (low weight for height) increases up to age 12-23 months and then falls thereafter. Children aged 12-23 months are 70 percent more likely to be underweight than a child aged 6-11 months.

- The likelihood of a child being stunted (low height for age) increases with age. The main increase in risk occurs between 12 months and 23 months but the risk does not fall thereafter.

- Children living in a household in the poorest quintile are almost three times as likely to be underweight or stunted and almost twice as likely to be wasted than a child living in a household with the richest quintile. This effect persists even after controlling for other characteristics.

- Khatlon appears to be the region with the highest risk for a child to be underweight or wasted. However the risk of stunting (i.e. chronic malnutrition) is highest in GBAO.

- The odds of a child being underweight is almost 50 percent higher if a child lives in a household without access to land than in a household with access to land.

- Once other factors are controlled for, the ownership of livestock significantly reduces the chances for a child to be both stunted and underweight.

3.2.3 Multiple anthropometric failure

Child nutritional status so far has been measured using the 3 indices of anthropometric failure separately. The Combined Index of Anthropometric Failure (CIAF) (Svedberg, 2000), provides a more comprehensive picture child malnutrition and shows the extent to which children are stunted and/or wasted and/ or underweight[10]. Figure 17 and Table 17 present data on the percentage of Tajik children under 5 years of age according to the CIAF. Thirty-five percent of young children experience at least one form of anthropometric failure, and 12 percent experience at least one form of severe anthropometric failure – representing around 100,000 children. Ten percent of Tajik children are found to be both stunted and underweight and 1.4 percent (approximately 10,000 children) are found to be stunted, wasted and underweight.

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9   1,387 children live in a household with at least one other child who is also included in the MICS and for whom data is also available. Therefore the model also controls for clustering of children within the same household. This because children or siblings living in the same household may have similar genetic factors or be affected by the same unobserved household/environmental characteristics. Failure to control for such clustering will result in an underestimation of the standard errors.

10 The Combined Index of Anthropometric Failure developed by Svegberg (2000) has been subject to criticism as it does distinguish between recent or chronic under-nutrition (Bhattacharyya, 2006). Nevertheless there is widespread agreement that the index provides a useful summary of the level of malnutrition.

Figure 17: Percentage of children aged 0 to 59 months with moderate anthropometric failure, MICS 2005.

Moderately Underweight

2.4%

9.9%   3.6%

1.4%

15.6%   2.1%

Moderately
Stunted

Moderately
Wasted

No moderate anthropometric failure = 65%
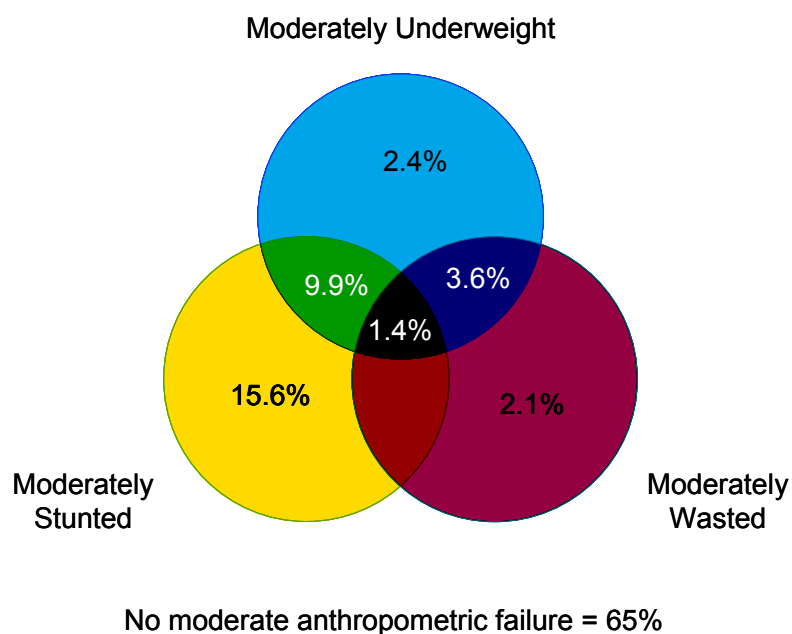
Figure 18: Percentage of children with moderate anthropometric failure by month for children 0 to 59 months, MICS 2005.

● % with mild AF △ 95% CI ▲ 95% CI
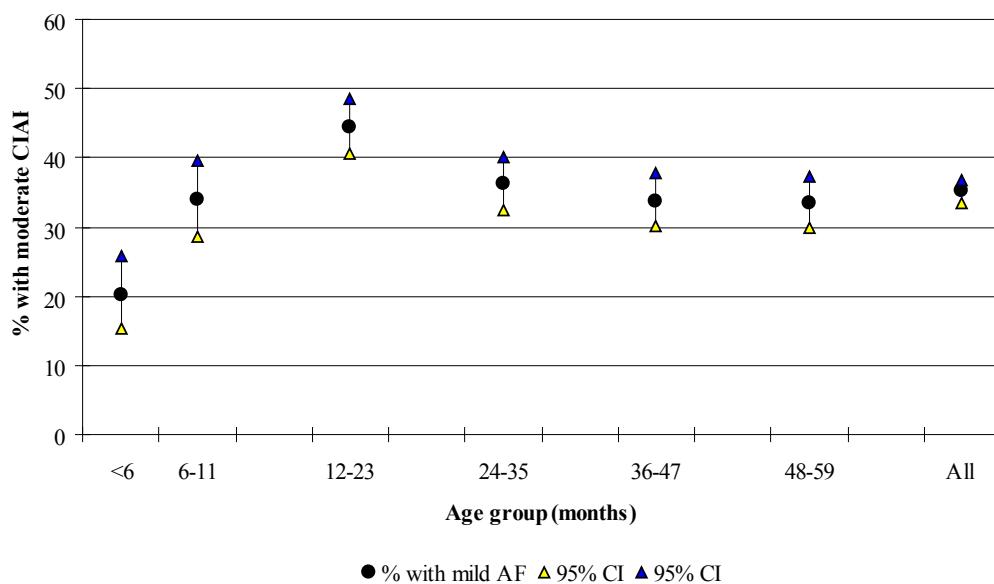
Source: Authors' own analysis UNICEF MICS 2005.

Figure 19: Percentage of children with severe anthropometric failure by month in children 0 to 50 months, MICS 2005.
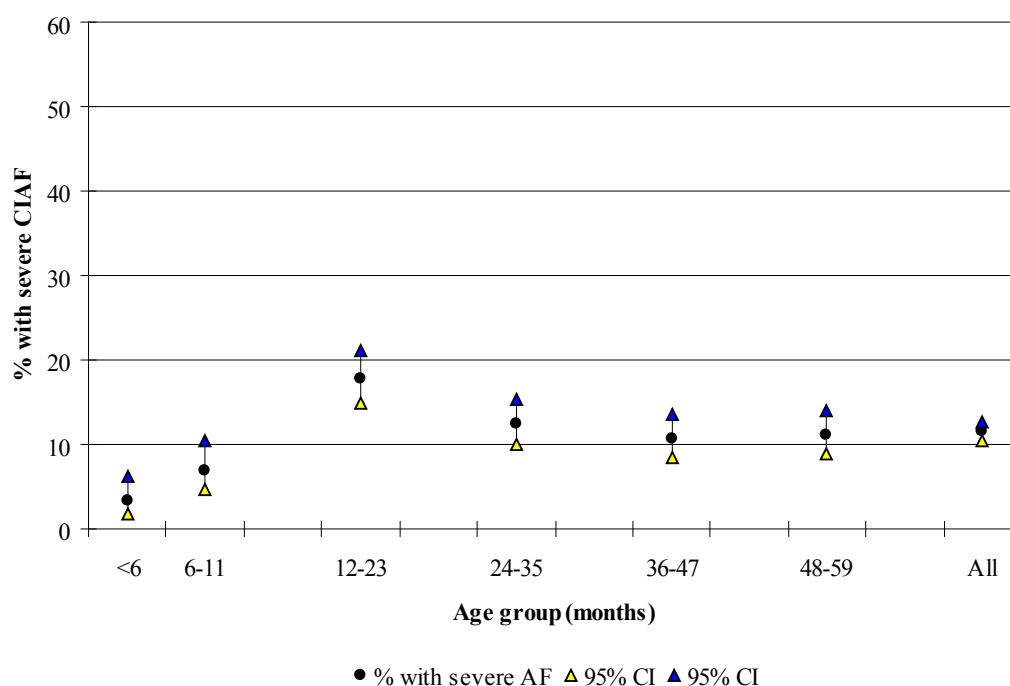
Source: Authors' own analysis UNICEF MICS 2005.

Figures 18 and 19 show the percentage of children with moderate or severe anthropometric failure by age. The risk of suffering an adverse nutritional outcome increases with age up to 23 months and then declines. This pattern is consistent with findings from longitudinal growth studies which indicate that growth-stunting occurs in a fairly narrow 'age window' from several months after birth to about 2 years of age. This coincides with the time when foods other than breast milk are generally introduced into the diet.

Analysis of the UNICEF MICS 2005 confirms that amongst Tajik children aged under 18 months, those who are exclusively breastfed or using other products to supplement breastfeeding are significantly less likely to have a negative nutritional outcome than children who are not breastfed (see also Table 18).

Figure 20: Nutritional status by breastfeeding pattern for children less than 18 months, MICS 2005
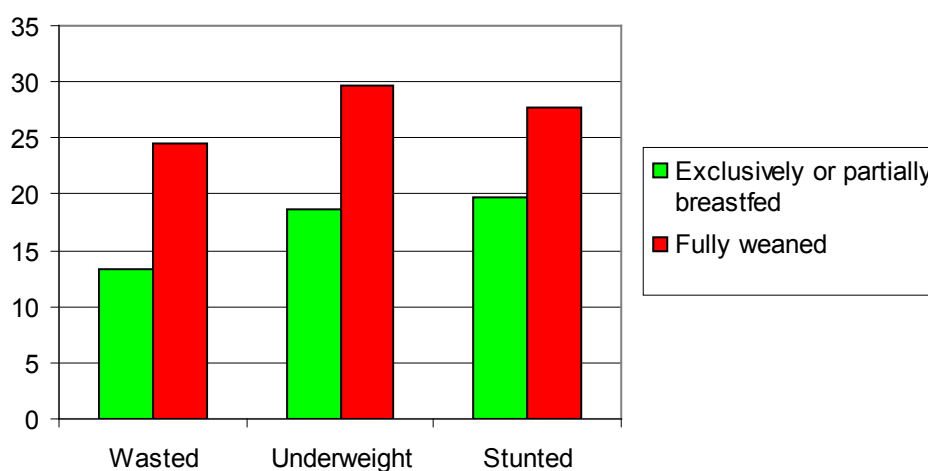
Source: Authors' own analysis UNICEF MICS 2005.

3.2.4 Nutrition, breastfeeding and child care.

The absence of appropriate early child-rearing practices, including breastfeeding and balanced diets, is a major cause of nutritional failure amongst young children. Breastfeeding protects children from infections and provides essential micronutrients for balanced growth. The UNICEF *World Fit for Children* goal suggests that children should be exclusively breastfed for the first six months of life and then should continue to be breastfed with 'safe and appropriate' complementary feeding up to two years of age or beyond.

In Tajikistan, only 24 percent of children aged 0-6 months are exclusively breastfed (Figure 21). A further 13 percent are 'almost exclusively' breastfed, with the use of only water and other non-nutritive liquids in addition to otherwise exclusive breastfeeding. Over half (59%) are 'partially breast-fed; i.e. mixed feeding with breast milk and other sources or energy and nutrients. Just five percent of young infants are not breastfed at all. However, amongst children aged 6-11 months, 13 percent are completely weaned and amongst those aged 12-23 months, 43 percent are completely weaned (Table 19). It appears that most women in Tajikistan stop exclusively breastfeeding and switch to a mix feeding pattern relatively early; amongst children aged 6-23 months under 5 percent are either 'exclusively' or 'almost exclusively' breastfed. As a result many children are exposed to the risk of poor nutrition and associated adverse developmental consequences.

Figure 21: Feeding practices of children aged 0-6 months, MICS 2005
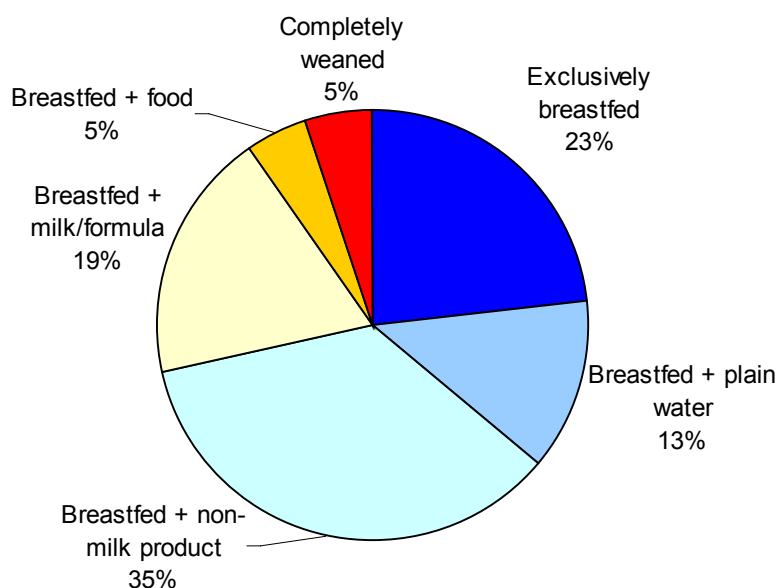
Source: Authors' own analysis UNICEF MICS 2005.

Given the patterns in anthropometric failure by age illustrated in Figures 18-19, and the patterns of breastfeeding by age of the child in Table 19, it is clear that there is a need for targeted interventions to improve infant and child feeding practices, particularly for children under age 2. Such interventions need to include public information and education for mothers and continuing education and training for health workers.

Many socio-cultural factors influence child feeding. Data on patterns of breastfeeding amongst different groups are presented in Table 20. There are significant differences in breastfeeding pattern by region, by ethnicity and urban and rural location, but there are no significant differences by household wealth or mother's education. In particular, the proportion of women who report exclusive or almost exclusive breastfeeding is much higher in GBAO than for the country as a whole. This may reflect the success of public health campaigns regarding infant feeding practices in this region. Although the number of cases is very low, there are indications that breastfeeding is less common amongst Russian women than amongst other ethnic groups, perhaps highlighting a need to reach this group.

3.3 WATER & SANITATION

Children have a right to access safe drinking water and sanitation facilities. In addition to being a fundamental basic right, access to adequate water and sanitation services also has a direct influence on children's health, education, well-being and social development, and improved water and sanitation will speed the achievement of all eight of the MDGs (WHO/UNICEF, 2005). As we have seen poor access to water and sanitation is

associated with increased risk of children suffering from, higher malnutrition. According to UNICEF and WHO access to safe drinking water is estimated by the percentage of the population using 'improved' drinking water sources such as piped household connection, public standpipe, borehole, protected dug well, protected spring and rainwater collection. Improved sanitation facilities are those more likely to ensure privacy and hygienic use and include connection to a public sewer, connection to a septic system, pour-flush latrines, some simple pit latrines and ventilated improved pit latrines.

Using data from the UNICEF MICS 2005, 34 percent of children aged under 5 living in Tajikistan do not have access to improved water sources. Only 21 percent of children have access to piped water into the dwelling, 13 percent have piped water in the yard but 21 percent have to rely on a public tap (see Table 21). Worryingly, 28 percent of young children are reliant on surface water for their main source of water; such water is often contaminated exposing children to the risk of contacting gastric bugs and other water borne diseases including cholera and typhoid.

Figure 22: Access to improved water and sanitation amongst children under 5 years old, MICS 2005
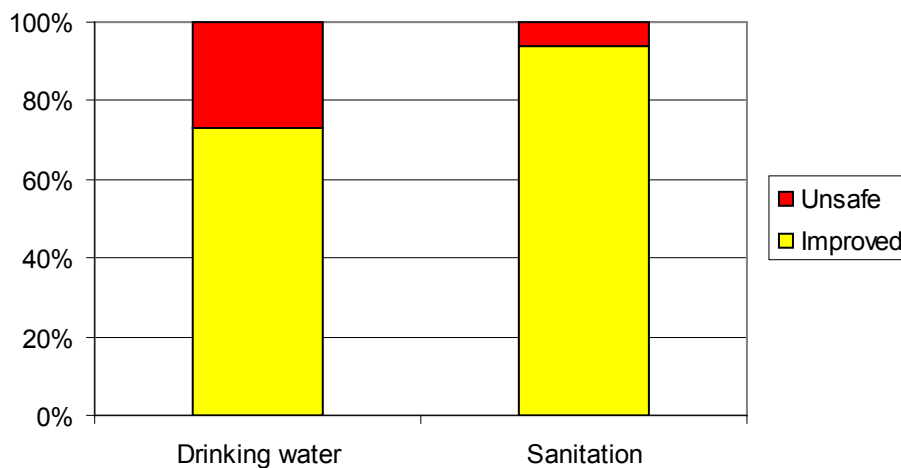
Source: Authors' own analysis UNICEF MICS 2005.

There are significant differences in water access by place of residence, region, wealth quintile and mother's education (see Table 23).

- Ninety-three percent of children living in urban area have access to improved drinking water compared to 56 percent of children in rural area.

- GBAO and Khatlon have the lowest percentage of children with access to improved drinking water with only 50 percent of children having access to improved water source compared with 70 percent in RRS and 95 percent in Dushanbe.

- Only 43 percent of children living in a household in the poorest quintile have access to improved water sources compared with 95 percent of children living a household belonging to the richest quintile.

- 54 percent children of mother with only primary or less education have access to improved drinking water compared to 81 percent of children with a mother with higher education.

Using the WHO/ UNICEF definition of 'improved' sanitation, 93 percent of children under 5 years old have access to improved toilet facility. However, only 13 percent have access to a toilet connected to a sewage system and 79 percent use pit latrine with a slab (Table 22). There are significant differences in access to improved sanitation facility by place of residence, region and wealth quintile. Ninety-seven percent of children residing in urban area have access to improved sanitation facility compared to 93 percent in rural areas. However, only one percent of the children living in rural areas have access to a flush toilet connected to the sewage system, compared with 50 percent of children living in urban areas. GBAO have the lowest percentage of children with access to a toilet connected to the sewage system (88 percent and children living in the capital the highest (99 percent).

Poor access to sanitation and poor water quality have a direct impact upon child health. According to data from the TLSS 2003, eight percent of boys under age 3 suffered from an acute illness in the four weeks prior to the interview (in May/June) compared with 6 percent of girls of the same age. The most common cause of acute ill health amongst children under three was a cold/flu (63 percent of boys and 56 percent of girls) followed by diarrhoea (15 percent of boys and 14 percent of girls). Alarmingly, however, 3 percent of cases of acute ill health amongst this age group were reported to be attributed to typhoid. Diarrhoea also accounts for around a quarter of acute ill health amongst boys aged between 3-10 years. Such diseases are directly related to poor sanitation and water quality and highlight the urgent need for investment in infrastructure.

3.4 ACCESS TO HEALTH CARE

Good health is a function of a complex set of interactions between genetic factors, individual and household behaviours, and the wider environment. The health care system plays an important role in both promoting good health and in intervening during episodes of poor health. The state has a responsibility towards children to provide access to good quality health care to support the achievement of children's rights to survival and development.

At independence the health care system in Tajikistan in common with other countries of the Soviet Union - based on the Siemaszko model - was characterised by universal entitlement to comprehensive and free health care. Utilisation rates were high and differences across groups in terms of access to health services were negligible (World Bank, 2000). However since independence, health services have deteriorated rapidly in the face of severe financial constraints, exacerbated by extensive damage to infrastructure during the civil war. Health care expenditure as a percentage of GDP has dropped from 6.4 percent in 1994 to 1.0 percent in 2004, and real spending on health care is now less than a tenth of its pre-independence level. Administrative data points to a significant fall in health care utilisation. Inpatient admissions have fallen from 21.5 per 100 population in 1990 to 10.4 per 100 population in 2004; outpatient contacts have

dropped from 7.5 to 4.4 per person per year over the same time period (WHO, Health for All Database).

The 1999 and 2003 TLSS have collected data on the use of both primary health care and hospital based care. Importantly the surveys also collected data on *non-use* of health care among those who reported that they needed medical assistance. Such data is only available from household based surveys. In 2003, a relatively low proportion of the overall population had sought medical assistance in the month prior to the survey. Utilisation rates amongst children under 18 are highest amongst infants, with 7 percent of boys and 5 percent of girls reporting seeking health care in the last month (Table 24). The majority of children (80 percent) saw a state doctor, with 40 percent being visited at home and a further third seeing the doctor at a polyclinic. The three most common causes cited for seeking health care amongst children were respiratory (30%), diarrhoea (15%) and malaria (10%).

Hospitalisation rates amongst children are low, with less than two percent of children under 18 experiencing an inpatient stay in the last 1 month. There are no significant differences by gender, with the exception of children under 3 where boy children were twice are likely to be hospitalized than girls (Table 25).

Interestingly, of those who reported that children 'needed medical assistance but not seek such care' in 2003, the majority of respondents reported that '*affordability*' was the main reason for not seeking medical attention. This contrasts with the position in 1999 where 'self-medication' was cited as the most common reason for not seeking care. Thus it appears that that the financial barriers to accessing health care have increased rather than decreased over the last four years.

Affordability is also an issue amongst those who receive health care. Of all children under 18 who saw a medical professional in the previous month, 87 percent received a prescription. Of these 9 in 10 reported that they were able to obtain all the items prescribed. However of those that could not, two-thirds of them reported that the reason for not doing so was that the drugs were '*too expensive*'. Thus a minority of children are being excluded from receiving medicines they require due to cost.

Table 26 shows the average amount paid for health care for children under 18 in Tajikistan in summer 2003. The distribution of out-of-pocket payments is highly skewed, with a few people reporting very high payments so data on both the mean and median value of out-of-pocket payments is presented. Not surprisingly, prescription medication constitutes the most expensive outlay associated with an episode of ill health. Amongst those making a payment, an average of nearly 22 somoni (around $7) was spent on prescription drugs. This is equivalent to approximately half of the monthly poverty line. The average value of official payments was 9 somoni, informal gifts 5.5 somoni and travel to the consultation - 7 somoni. Taken together the cost of one episode of child ill health involving a primary care consultation and prescription can easily amount to the parent's total monthly salary.

Hospitalisation represents a major expenditure for most households. The proportion who report paying for medicines and services during the hospitalisation of a child under 18 is very high (Table 27). Over 90 percent report paying for hospital charges, four-fifths for medicines, three-quarters for other supplies and two-thirds for physician and/or ancillary staff charges. There is no difference in the percentage paying for serv-

ices between children under 18 and the remainder of the population, indicating that children do not receive preferential treatment.

Children's access to free health care for basic primary and hospital based health services needs to be restored and protected. In particular, the government needs to increase the proportion of GDP that is directed towards health care and to prioritise heath services for children if the generation being borne today is to realise their full potential. The Government is currently introducing a series of reforms to the financing of the health sector; exemptions for children from all charges for basic health care services should be part of that reform.

4. EDUCATION & DEVELOPMENT

4.1 EARLY CHILDHOOD CARE AND EDUCATION

A child's right to 'development' and 'protection' begins at birth. The first *Education for All* goal outlined in the 2000 Dakar Framework for Action calls for 'expanding and improving comprehensive early childhood care and education (ECCE), especially for the most vulnerable and disadvantaged children. Good EECE programmes can significantly enhance young children's well-being in the formative years and complement care received at home. The benefits derived from learning opportunities in early childhood lay the foundations for later achievement in school. ECCE can also improve children's health and nutrition. In principle, in Tajikistan children aged 2 months to 6 years are entitled to preschool education, either in a day nursery (2 months to 2 years) or a kindergarten (3-6 years).

The network of preschools was not as extensive in Tajikistan as elsewhere in the Soviet Union; even in 1989 it is estimated that only 16 percent of 3-6 year olds were enrolled in kindergarten compared with 31 percent in the Kyrgyz Republic, 37 percent in Uzbekistan and 53 percent in Kazakhstan. However enrolments rates have fallen sharply since independence and in 2004 just 7 percent of 3-6 year olds were enrolled in kindergartens (UNICEF Monee Report 2006). The trends in enrolment rates reflect changes in both the supply of places and in demand. Over the 1990s the number of kindergartens fell by 40 percent, with the closure of many enterprise based (employer provided) facilities and the destruction of infrastructure due to the civil war.

Data from the UNICEF MICS 2005 shows that only 10% of children aged 36-59 months are currently attending some form of organised early childhood education programme (Table 28). This varies significantly by region, with young children in Dushanbe being considerably more likely to be enrolled than children elsewhere in the country.

Figure 23: Percentage of children aged 36-59 months who are attending some form of organized early childhood education programme by region, MICS 2005
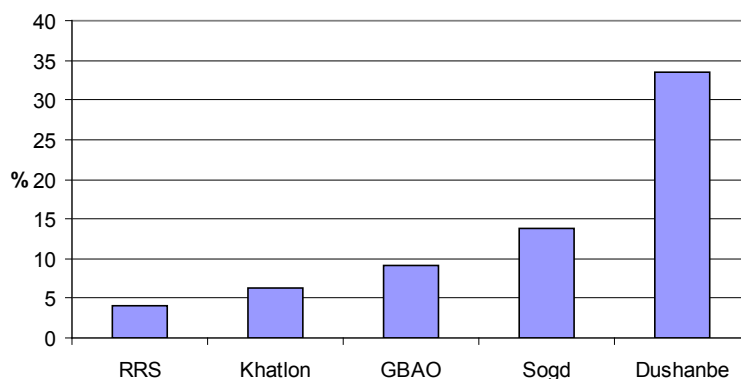
Source: Authors' own analysis UNICEF MICS 2005.

Figure 24: Percentage of children aged 36-59 months who are attending some form of organized early childhood education programme by wealth quintile, MICS 2005
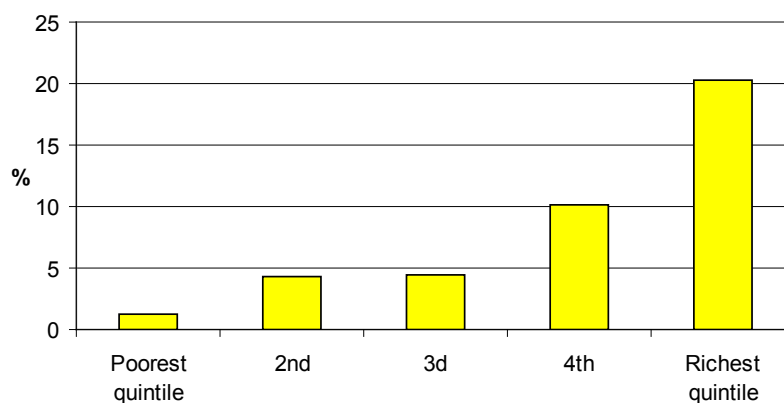
Source: Authors' own analysis UNICEF MICS 2005.

Although most ECCE are run by the state, parents are often asked to contribute financially to the running of ECCE programmes and this may present a barrier to poor families wishing to enrol their children. The evidence shows that children from the poorest backgrounds, and who may be thought to benefit most from ECCE provision in terms of health and education, are most likely to be excluded from it (Figure 24). Just one percent of young children living in the poorest fifth of households as ranked by their ownership of assets, are enrolled in organized early childhood education compared with 20 percent of those in the richest fifth.

The low level of enrolment in ECCE means that a high proportion of children in Tajikistan enter the first grade of primary education unprepared for the school program (Table 29). Overall, only around 30 percent of first graders report having attended preschool. This varies from 76 percent in Dushanbe to just 9 percent in Khatlon; and from 11 percent of those from the poorest households to 59 percent of those living in the richest households.

In 2004, in his annual message to the nation, President Rakhmonov charged local authorities with the rehabilitation of a functioning network of kindergartens. There clearly remains much to be done both to restore the infrastructure and to level the playing field so that all children, including those from the poorest households, have an opportunity to benefit from ECCE.

4.2 ENROLMENT IN BASIC EDUCATION

Education in Tajikistan is compulsory until the 9th grade, with primary education covering four years from age 7 to age 10, lower secondary education running from age 11-15. The state also provides upper secondary education from age 16-17. Enrolment rates

are generally high, although rates decrease with age after age 12, with the fall being more pronounced amongst girls than boys.

Figure 25: School enrolment by gender and age, TLSS 2003.
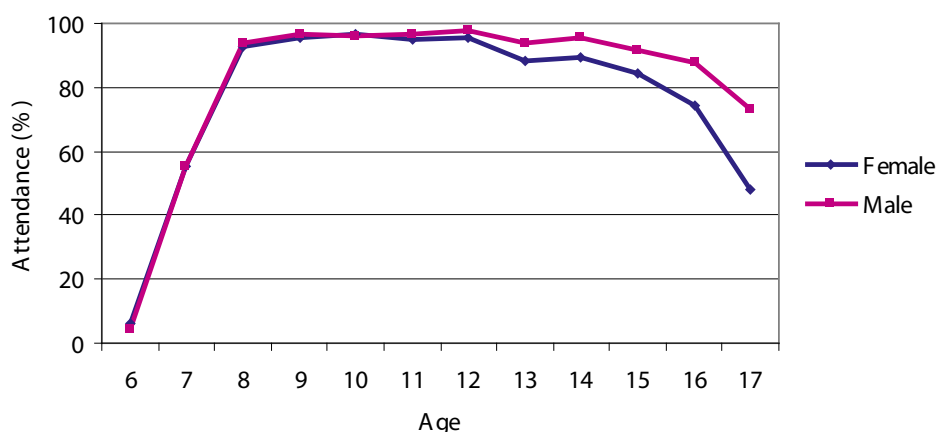
Source: authors' own analysis of the 2003 TLSS.

Table 30 presents data on how enrolment rates vary by some key individual and parental characteristics.

- There appear to be no significant differences in enrolment in primary education by gender or by the socio-economic characteristics of the family.
- There are, however, significant differences for enrolment in secondary education
- Girls are less likely than boys to enrol in secondary education, particularly upper secondary.
- Parental characteristics have a significant impact upon the likelihood of a child being enrolled in secondary education.
- Children with higher educated mothers and fathers are more likely to be in secondary education than those whose parent's have only primary education or lower.
- Father's employment status is also found to affect strongly affect enrolment in upper secondary education.
- There are strong regional differences in enrolment in education, with enrolment in secondary education being lower in urban district than in rural areas.
- Children living in Dushanbe experience the lowest level of engagement with secondary education, with an enrolment rate amongst 11-15 year olds of around 85 percent compared with the national average of around 93 percent.
- A significant proportion of pupils stay on for upper secondary education in GBAO. Elsewhere however enrolment rates drop to around 65 percent.

Figure 26: Primary and Secondary school attendance by mother education, TLSS 2003.
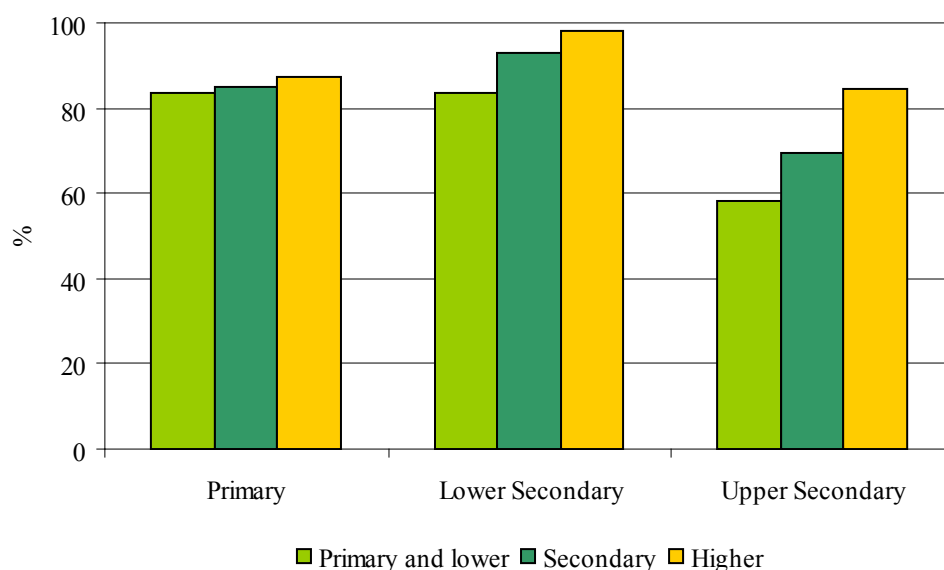
Source: authors' own analysis TLSS 2003.

4.3 STAYING IN SCHOOL: INDIVIDUAL, HOUSEHOLD AND COMMUNITY INFLUENCES

According to the World Bank Poverty Assessment Update (World Bank, 2005), attendance in education within Tajikistan has dropped since 2000, and the fall in school attendance rates has been particularly noticeable in secondary and post compulsory education. The increasing cost of education, declines in the quality of schooling, and the remote physical location of some education institutions have been all cited as possible causes for the fall in school attendance rates. However a comprehensive analysis that investigates the relative roles individual, household and community influences on school attendance in Tajikistan remains lacking.

The decision to send a child to school depends upon a set of individual or household level characteristics such as the child's age, gender, level of parental education and the household's socio-economic status. A number of contextual factors outside of the household may be hypothesised to influence school attendance: for example the availability of school service in the communities, the perceived quality of schooling, the opportunity cost that the family faces in terms of the opportunities for income generating activities forgone when making decision to send a child to school and the overall level of economic development in the community (see Figure 27).

Figure 27: Conceptual framework.

CONTEXTUAL VARIABLES		INDIVIDUAL LEVEL VARIABLES
Availability/accessibility of services		Parental education
Quality of schooling	School Attendance	Child age
Opportunity cost to education		Gender
Economic development of communities		Place of residence
		Socio-economic characteristics of the family
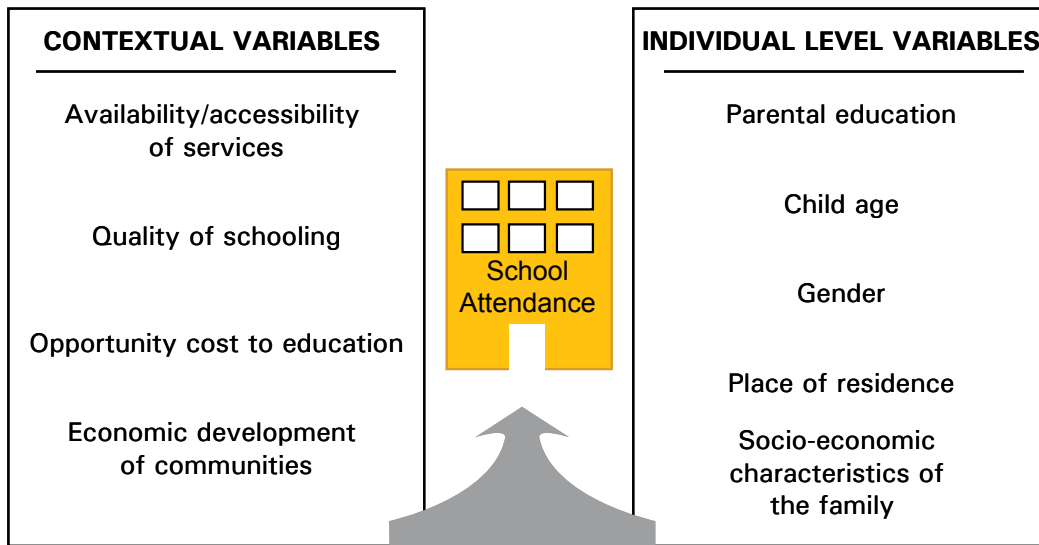
There is no single data source available within Tajikistan that contains information on both the individual and household characteristics of children, their attendance at school and the characteristics of the community in which they live. Therefore, for this report data from a range of different sources have been combined to create a unique dataset with which to investigate the correlates of school attendance.

Figure 28: Combining data to investigate the factors influencing school enrolment

LandSat Image representing land cover of the country

Poverty estimates at jamoat (village) level derived from the poverty mapping technique
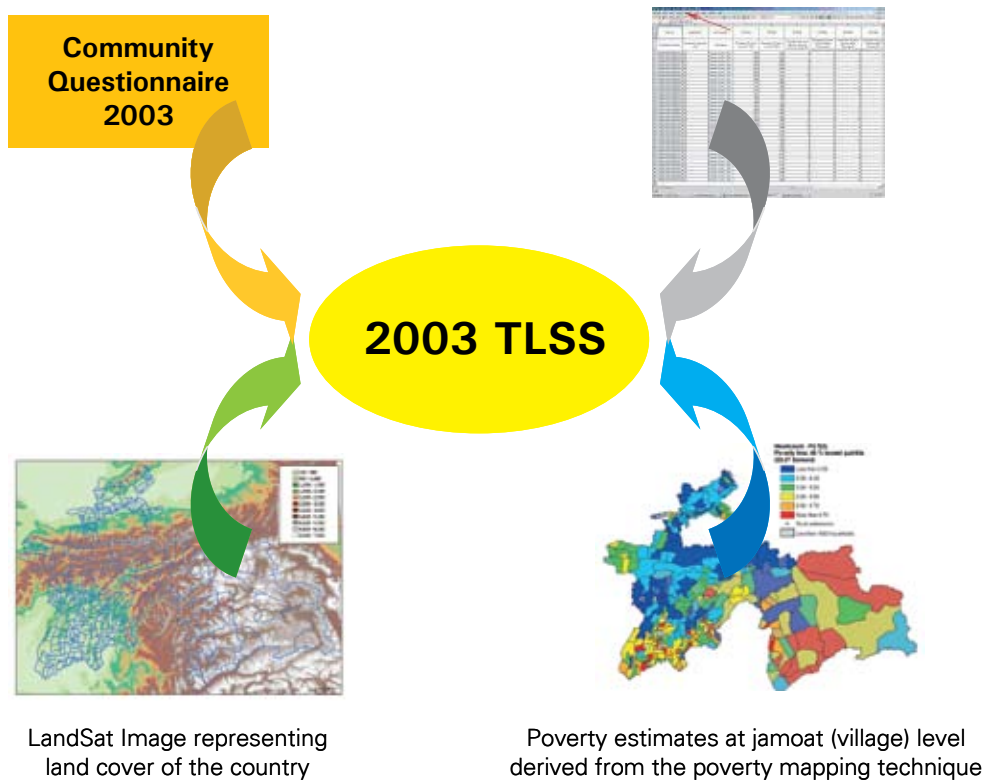
The 2003 Tajikistan Living Standard Survey (TLSS) collected detailed information on 7,344 children aged between 7 and 17 i.e. of school age. For each child it is possible to derive a set of variables including their age, sex, level of mother's education (primary or lower, secondary, higher), level of father's education (primary or lower, secondary, higher), father's economic status (working or not working) whether the household is poor or not[11], as well whether they are currently attending school or another educational establishment.

In addition to the household and individual questionnaires, the TLSS also included a community questionnaire which was administered in each of the 208 primary sampling units. The community questionnaire collected a range of data including the presence of various types of educational facilities (primary, secondary and tertiary) in the community and if not, the distance and travel time to the nearest facility of that type (usually in the raion centre). These variables provide information both about the *availability* of schooling within the community and *accessibility* of education facilities outside the community.

Key stakeholders within the community, such as village leaders, teachers, doctors etc. were also asked about the quality of schools in the community. In particular, the stakeholders were asked whether 'most schools in this population point have satisfactory and sufficient... a) buildings, b) desks/chairs, c) blackboards, d) textbooks, e) heating fuels, f) other school supplies and other question related to the perception of the quality of schooling.

The *opportunity cost* of sending children to school in terms of *income generating activities foregone* may be hypothesized to be a function of the opportunities for such income generation within the community. In order to capture such opportunities, data from the community level questionnaire can be used to derive a series of variables including the presence of a market/bazaar, the major economic activity in the community agriculture or otherwise), and if agriculture, the major crop. Previous research has highlighted the role of child labour in certain activities including cotton picking. As cotton is the most important cash crop within Tajikistan, capturing this was felt to be of particular importance. However the level of detail in the community questionnaire is limited. In order to enhance this, a set of additional variables concerning land cover, altitude of settlement and the slope of the land surrounding the settlement are derived from a set of LandSat images for the country. As both the LandSat images and the TLSS dataset are geo-referenced, the two datasets are linked using GIS.

Finally, it is hypothesized that school attendance may, in part, be a function of the *level of economic development of the community*. Estimates of community poverty at the jamoat level obtained from the poverty mapping exercise along with other information from the 1999 Census are used to provide a set of contextual variables representing the economic development of the communities. These include the proportion of the population 15 years or older who are economically active, the proportion working in various occupations and the proportion with various levels of education.

The results of a multilevel regression model including the community variables along with the personal and household characteristics of the child are shown in Table 31.

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11 *Poverty is defined here as living in a household where the per capita household expenditure (adjusted for regional differences in prices) is below $2.15 PPP per day. This is the central definition of poverty used in the World Bank Poverty Assessment Update (World Bank, 2005).*

Key findings include:

1. The child's *individual* characteristics are important, with enrolment falling with age and with girls more likely to drop out of school than boys, even after controlling for all other factors.

This result confirms previous findings from the qualitative study carried out by the UNICEF designed to understand the reasons behind girls school drop out (d'Hellencourt 2004). That study found that girls believe that education will not impact upon their future quality of life and that parents prefer to send to school boys rather than girls when confronted with economic difficulties. This study also found that girls prefer to attend 'Bihutan' which are religious classes which are considered an alternative form of education for girls. Girls prefer such classes firstly because they are provided free of charge and secondly because they are perceived to provide more relevant skills for future married life.

2. *Parental* characteristics also continue to be important:

    - Enrolment is higher amongst children with better educated parents.
    - Children living in poor households are also more likely to drop out than children whose household is non poor.

This issue also came out from children themselves during the focus group discussions. Nadya, 15 years old from Khojand, explaining her reasons for not going to school, said: *"I do not go to school now because my parents cannot afford to buy notebooks, textbooks and other school supplies for me. I had to drop out of school and help my mother to earn money. Ours is a family of 7, 3 adults, and 4 children. But my mother is the only one in the family who has a job. I try and help her but the money we have is not enough to buy everything we need".* Ismatullo, 13 years old living in Dushanbe said *" Even if you are wise as Solomon, you cannot continue studying if you have no money".*

3. *Community* level factors are also critical:

    - **Availability** of complete secondary education within the community is important, with enrolment being significantly lower amongst children living in communities with a secondary school.
    - Perceived **quality** is significant, with enrolment lower in communities where quality is perceived to be poor.

The issue of the perception of poor quality of education as a deterrent for school attendance was also highlighted during the focus group discussion with children on this topic. The focus groups revealed issues related to poor school infrastructure and need for supplementary teaching (Saidov, 2006).

> *Rasoul, 15 year old "We wish we would speak fluent Russian, in case we have to go to Russia. However, the teaching of Russian at school is very weak. We can say that we do not know this subject".*

> *Doud, 11 years old from Roghum discussed his discontent with school infrastructure "My joint ache. It is cold in classes in winter. Most of the time in winter I stay home".*

- **Opportunities for employment outside of school** may also play a significant

role in determining participation in education. Children living in communities where a high proportion of land has a slope of less the 5 degrees (i.e. is potentially arable) and less likely to be enrolled than other children. This is after controlling for urban and rural residence.

There have been several studies which have shown evidence of the effect of employment opportunities on school attendance in Tajikistan. For example, a survey conducted on behalf of the IOM/PULSE found that children in Panj Vose and Khatlon were missing around 10 percent of the study hours per year and in Zafarabod students were absent from classes for up to one-third of the academic year due to cotton harvesting (IOM/PULSE, pg 18). The same study also found that in cotton growing regions of Zafarabad, Panj Vose and Khatlon, 20 percent, 62 percent and 72 percent of school children participated in the 2003 cotton harvest. Our analysis confirm that school absenteeism is higher in areas with arable land and highlights that the problem of children school drop out due to child labour opportunities it is not limited to a few areas but has relevance nationwide .

The analysis confirms the importance of *place* in determining school enrolment as well as individual and parental characteristics. This has important implications for policy makers, suggesting that policies that impact at the community level can have a significant beneficial affect on schooling. Improving the quality of school and/or availability of institutions at the local level will reduce school drop out.

5. RISK AND SAFETY

Protection from harmful influences, abuse and exploitation are all basic rights enshrined in the 1989 Convention on the Rights of the Child. The Government of Tajikistan ratified the main protocols of the CRC on 26th October 1993 and in 2002 it ratified further optional protocols including protection of children in armed conflict, child trafficking, child prostitution and child violence. Tajikistan has a monist system which means that international instruments automatically become part of their national law upon ratification or accession. Ratification of the CRC therefore provides Tajikistan with a framework for ensuring children are protected from exploitation, violence and harm.

5.1 CHILD LABOUR

According to Tajikistan's Labour Code, the minimum age for the employment of children is 16 years of age and workers under the age of 18 may work no more than 6 hours a day and 36 hours a week. However it is acceptable for children under 16 to do some light work. Article 174 of Tajikistan's Labour code states that:

> "To prepare young people for production labour it is allowed to take pupils from schools, students of professional colleges for carrying out light work, which will not cause damage to their health and education. Work should be performed during free time after reaching age of 14 and with the approval of a parent guardian".

There are some concerns that this Code is not being strictly enforced and that during harvest time in particular children of primary school age work in the cotton fields (ICG, 2005). As noted earlier, survey conducted on behalf of the International Organization for Migration (IOM) found that children in Panj Vose in Khatlon were missing around 10 per cent of the study hours per year and in Zafarabod students were absent from classes for up to one-third of the academic year due to cotton harvesting. Moreover, in this report, statistical analysis of nationally representative data has confirmed that school enrolment rates are lower in areas where opportunities for employment outside of school are higher.

Child labour is a difficult concept to define. According to survey data collected as part of the UNICEF 2005 MICS, many children in Tajikistan are involved in some form of work, although only a minority (3.6%) are involved in paid work (Table 32). Two-thirds of children aged between 5 and 14 report carrying out household chores on a regular basis. However for most children, these activities occupy less than 4 hours a day. Just 5 percent of children report carrying out household chores amounting to 28 hours or more a week. Using a definition of child labour that combines all those doing paid work, unpaid work, intensive household chores and working for the family business, around 12 percent of all children 5-14 years old are engaged in one of more of these ac-

tivities. This varies significantly by age, with over a quarter (25.3%) of 12-14 years olds 'working' compared to 6 percent of younger children aged 5 to 11.

The proportion of children engaged in child labour varies significantly by their household's socio-economic position. Children living in the poorest households are nearly twice as likely to be engaged in child labour than those living in the richest households (15.6% compared with 9.5%).   Most of this differential is due to differences in the proportions engaged in intensive household chores (8.3% versus 1.7%).

Figure 29: Percentage of children aged 5-14 involved in child labour activities, MICS 2005
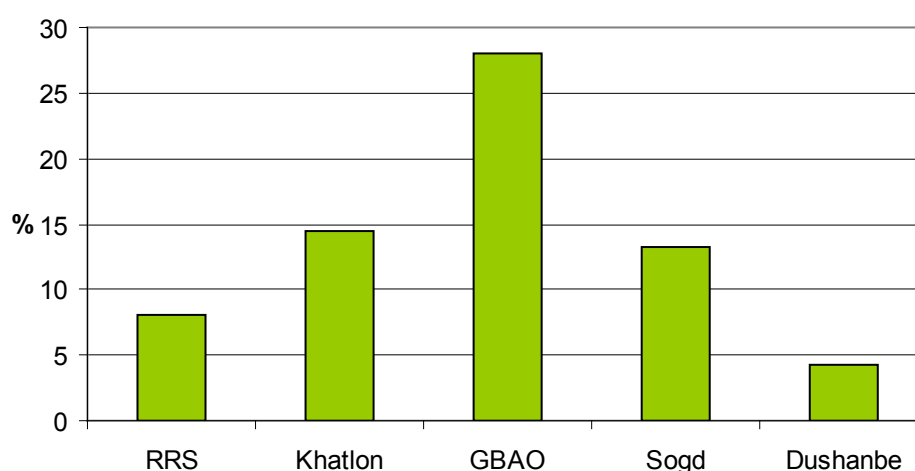
Source: authors' own analysis MICS 2005.

There are also clear differences in child labour by place of residence, with children living in rural areas being more likely to be engaged in intensive household chores than children in urban areas (6.2% v 2.4%). In contrast, children living in urban areas are more likely to work for the family business (3.6% v 1.6%).

The likelihood of being engaged in child labour also varies by region. GBAO stands out, with 28 percent of children aged 5 to 14 being engaged in some form of child labour – over twice the national average. Children in GBAO have the highest rates of involvement in intensive household chores, but also the highest rates of paid and unpaid work. Interestingly, children in Dushanbe are the least likely to be engaged in child labour activities overall, with just 4 percent of children aged 5 to 14 doing so – a third of the national average. However, they are also the most likely to find themselves working in the family business (3.1%), reflecting the different economic opportunities in the capital city.

How does child labour interact with school attendance? The first column in Table 33 shows the proportion of child labourers who are attending school, whilst the third column shows the proportion of school students who are involved in child labour.

- The majority of children engaged in child labour in Tajikistan are also attending school (89%).

- Drop out rates amongst working children are higher in urban than rural areas, with 26 percent of working children in urban areas *not* attending school compared with just 7 percent in rural areas.

- Drop out rates amongst child labourers also vary by mother's education, being highest amongst those children with the least educated mothers.

- Interestingly, although GBAO has the highest rate of child labour, it also has the lowest rate of school drop out amongst these children, with just 8 percent of child labourers not attending school compared with the national average of 11 percent.

- In contrast, Dushanbe, with the lowest rate of child labour, has the highest rate of school drop out amongst those who work at 14 percent. This may reflect the type of work children are engaged in and the fact that it is easier to combine some forms of work with schooling than others.

Although the proportion of children aged 5-14 years in Tajikistan engaged in child labour is relatively low, given the size of the child population, the absolute numbers are relatively high. It is estimated that around 200,000 children aged 5-14 are engaged in some form of child labour (excluding non intensive household chores) and 65,000 children aged 5-14 are engaged in paid work. Most of these children attend school but around 10% i.e. 20,000 do not. These are children living in private households and the figures do not include street children. These children are effectively excluded from the opportunity to fulfil their potential to the fullest possible. Whilst the government of Tajikistan recognizes that child labour is a problem, it does not currently have a comprehensive policy for eliminating child labour and the government has not signed the ILO Convention 182 on the 'Worst Forms of Child Labour.' Urgent action to tackle child labour in all its forms is required.

5.2 VIOLENCE, NEGLECT AND ABUSE

The Convention on the Right of the Child (CRC) requires States to protect children from 'all forms of physical or mental violence" whilst in the care of the others (article 19, CRC). The Committee on the Rights of the Child, the monitoring treaty body for the CRC, interprets the Convention as requiring prohibition of all corporal punishment, including in the family. At present, however, there are no national laws that prohibit corporal punishment in the home, in school, as a discipline measure in penal institutions or in alternative forms of care. Unfortunately child abuse and neglect is prevalent throughout Tajik society and many children are routinely exposed to physical and psychological punishment in the home, at school and in other settings. Urgent action is needed in order to implement the CRC in this sphere.

5.2.1 Child abuse within the family
There is a paucity of data on child abuse within the family in Tajikistan. However the 2005 MICS included a set of questions on child discipline which shed some light on the prevalence of physical and mental violence in the home. The mother or primary caretaker of selected children aged 2-14 years were asked about various methods that they or anyone else in the household had used 'to teach children the right be-

haviour or to address a behaviour problem' over the past month. Figure 30 (and Table 34) presents the results for boys and girls. From this it is clear that physical and psychological punishment of children is still commonplace. Indeed around a sixth of caregivers agreed with the statement that 'in order to bring up children properly, you need to physically punish them'.

Figure 30: Percentage of children aged 2-14 who have been subjected to various methods of child discipline in the previous month, MICS 2005
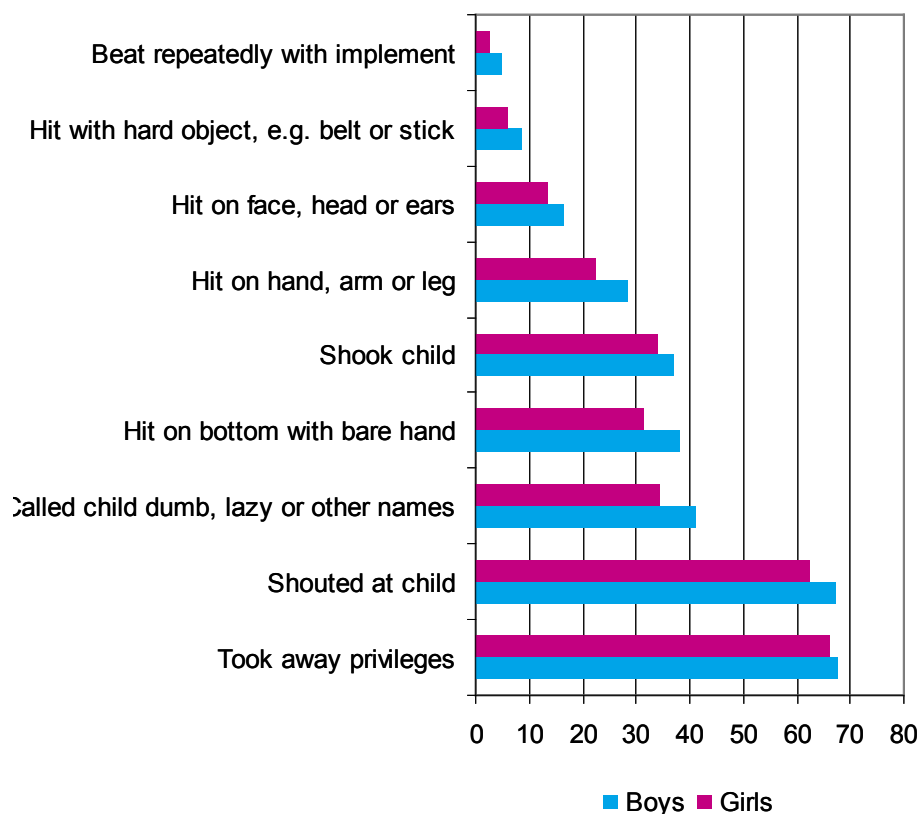
Source: authors' own analysis MICS 2005.

A minority of children received extreme physical punishment, with 7 percent of children being beaten by a hard object like a belt, hairbrush or stick and 4 percent 'hit over and over as hard as one could'. However, over a half of children were subjected to less severe physical punishments such shaking or being spanked on the bottom with a hand. Two-third of children were shouted at and over a third were called dumb or lazy or other names. The proportion of boys receiving a punishment was higher than girls.

The proportion of children receiving various forms of punishment differs according to their own and household characteristics (Table 35).

- Younger children i.e. those aged 2-4 years were generally less likely to be punished than older children, although worryingly 20 percent had received a severe physical punishment in the last month[12].

- Children of better educated mothers were less likely to receive severe physical punishment and more likely to receive non violent punishment than those with less educated mothers. However there were no differences in the likelihood of children receiving psychological punishment by mothers' education.

- There are strong regional differentials, with children living in Khatlon being twice as likely to receive severe physical punishment that those living in Sogd and GBAO.

Such violence seems to be accepted as part of normal life by Tajik children. A qualitative study on child violence conducted by a Tajik NGO Open Asia found that children consider physical violence to be a 'normal' form of discipline used by parents and relatives to punish and to teach children. When asked how they would handle problems of violence in their family, 44 per cent of children said that they would suffer in silence because their parents 'have the authority and right to use violence to punish them'.

5.2.2 Child abuse in public settings

In Tajikistan, child abuse manifests itself at different levels within society. In addition to being exposed to violence within the home, children also face violence and exploitation in public settings, such as schools, religious institutions, care and residential institutions, on the streets, in work situations and in detention facilities and prisons. To date, there have been few systematic attempts to measure the prevalence of violence against children in institutions but a couple of studies have examined violence in schools. A recent assessment on violence and exploitation of children conducted by UNICEF reviews all the studies conducted by local NGO on child violence (see Haarr, 2005). From this meta analysis it is estimated that between a quarter and a half (25-50%) of adolescents have experienced either physical or psychological abuse at school from teachers and classmates. However the Ministry of Education provides no formal guidance or policies on bullying.

Following the collapse of the Soviet Union, 'street children' have emerged as a growing problem. In 1995 UNICEF estimated that 60,000 orphaned children remained abandoned in Tajikistan and these children are at particular risk of abuse. The qualitative study on children's view of poverty reveals that children themselves are aware of this phenomenon (see Saidov, 2006). During a focus group discussion Hochamgol, 13 years old stated *"I think that orphans suffer the most from poverty. Everybody can abuse or chide them, and nobody will defend them"*.

Children are also vulnerable to routine abuse by employers who subject them to poor working conditions and low pay. This is particularly the case within the agri-

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12   Here 'minor' physical violence includes shaking or hitting or slapping the child on the hand or leg as a method of discipline. 'Severe' physical violence includes hitting the child on the bottom or elsewhere on the body with something like a belt, hairbrush, stick or other hard object or hitting the child in the face, head or ears, or beating the child with an implement.

cultural sector. A report from the International Crisis Group (2005) found that several cotton fields where young adults and children were working had been sprayed with potentially dangerous chemicals; children are generally more vulnerable to the exposure of those chemicals than adults. More than one survey has found that the working hours are long and sometimes children are failed to be paid (ICG, 2005; see Haarr, 2005).

The qualitative study on children's views found that a widespread agreement about this issue (see Saidov, 2006). Umed, 9 years old from Shakristan rayon discussing this issue said *"The whole group of older schoolchildren was brought to Russia to the city of Volgograd to work in the agricultural sector and pick watermelons. They worked hard but as a result no money has been paid to them yet"*.

Radjabali, 12 years old from Khamadoni district reporting his day said

> *"Once we get back from school and do all housework there is no time left. In the cotton season we pick cotton till late at night. However, everybody likes to play". Jumamakhmad, 13 years old of Ragun said "I work so hard during the day that coming back home I am so tired that I cannot do my homework, sleep hangs on my eyelids".*

During the last five years an even more worrying trend has emerged – child trafficking. There is now evidence that children, particularly girls are increasingly being trafficked out of Tajikistan (IOM, 2001). The promise of respectable jobs lures young women out of the country but instead of finding jobs many girls find themselves entrapped in domestic servitude and the sex industry. The true extent of trafficking is unknown but it is estimated that over 300 girls and women were trafficked out of Tajikistan to work in the sex industry in the United Arab Emirates in 2000 alone.

There are currently no comprehensive policies dealing with violence against children. There are also no special provisions making corporal punishment illegal. In addition, there are currently no statutory acts in Tajikistan's legislation which would require persons, such as teachers and doctors, to report acts of violence, abuse, neglect and/or exploitation against children.

However, there are some recent developments that give cause for hope. In 2003, the National Expert Group on Violence against Children was established by the National Commission on Child Protection. The expert group has begun to analyze the extent and nature of violence against children in Tajikistan and to review the legislative framework that protects children who are victims of violence. There have been a number of mass media campaigns to raise public awareness on the rights of the child and a series of workshops have been organised for professionals and decision makers on reducing violence against children. A telephone hotline (operated by the NGO '*Association of Women Scientists of Tajikistan*') has also been established. It is hoped that the *2005-2009 Country Programme Action Plan (to Reduce Violence and Exploitation of Children)* will begin to deliver the protection and security to which all children should be entitled. Progress will depend upon the efforts of national, international and local communities to work together to advocate and implement child focused programme, policies and child welfare and protections systems.

5.3 RISK BEHAVIOUR

The region of the Former Soviet Union now holds the dubious distinction of experiencing the fastest growing HIV/AIDS epidemic in the World and AIDS looks set to become one of the major causes of premature mortality amongst adolescents and young adults. Tajikistan is still at the early stages of the epidemic. However, knowledge of HIV/AIDS amongst young people is alarmingly low. In 2000 just 10 percent of young women aged 15-19 had heard of the disease. This had risen to 30 percent in 2005, but the percentage of young people who have knowledge of how to protect themselves from contracting HIV is still disturbingly low.

Figure 31: Percentage of women aged 15-44 who have heard about AIDS by region, MICS 2005
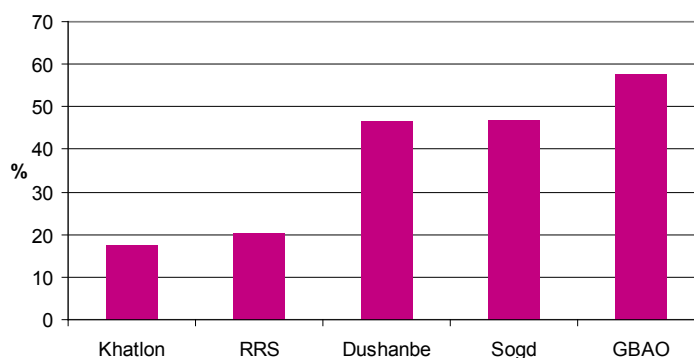
Figure 32: Percentage of women aged 15-44 who have heard about AIDS by socioeconomic status, MICS 2005
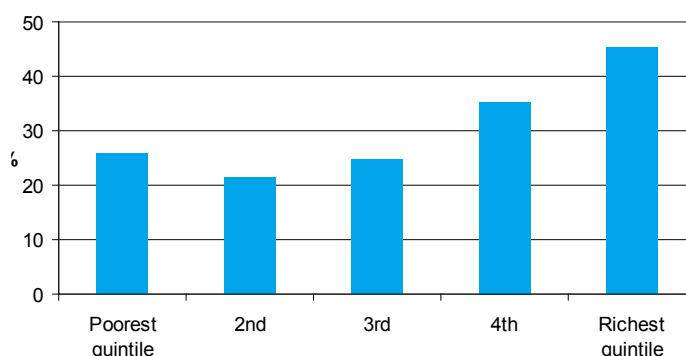
Source: authors' own analysis MICS 2005.

Knowledge of AIDS varies considerably by region, being lowest in Khatlon (17%) and highest in GBAO (58%). Knowledge also varies by women's socio-economic characteristics. Young women whose mothers have had a higher education are significantly

more likely to have heard of AIDs (79%) than those with complete secondary (38%) or incomplete secondary (23%) education (Table 36).   There is also a clear gradient by household socioeconomic status as measured by the wealth quintile (Figure 32).

Of course having heard of AIDS does not necessarily mean that young women know how to protect themselves from contracting the disease (Table 36). Comprehensive knowledge is defined as being able to correctly identify 2 ways to prevent transmission *and* correctly identify 3 misconceptions about transmission. Interestingly, although a higher proportion of young women in GBAO have heard of AIDS, amongst these women comprehensive knowledge remains low, with just 32% knowing that using a condom or having sex with one faithful uninfected partner prevent transmission. In contrast amongst those women who had heard of AIDS in Khatlon, 62% knew both ways to prevent transmission.

Although the prevalence is low, prevalence rates within certain subgroups of the population are increasing rapidly. For example, prevalence amongst injecting drug users was just 4% in 2001 but had risen to 12% by 2004. At the same time the number of drug users is also rising as a result of increased drug trafficking through Tajikistan from Afghanistan. According to UNODC there was a 17-fold increase in opiate abuse during the 1990s across Central Asia. The Tajik authorities estimate the number of drug addicts in the country to be around 55,000-75,000 people, of whom 80% are heroin addicts. Much of the growth in drug abuse has occurred amongst young people; the average age of Tajik addicts has fallen from about 30 to 35 years old to between 20 and 29. Female addicts, many of whom are sex workers, account for around 30 percent of all registered users. Such trends have worrying implications for the spread of infectious diseases, particularly HIV/AIDS.

Stigma around HIV remains very high with around 95% of all those who have heard of AIDs agreeing with at least one discriminatory statement (Table 37). It is clear that significant effort is required to improve public health messages to young people around the disease.

6. THE RELATIONSHIP BETWEEN MONETARY AND NON MONETARY DIMENSIONS OF CHILD POVERTY

So far we have generally looked at the different indicators of child deprivation in isolation. However, it is highly likely that there significant overlaps between the different types of deprivation, with some children suffering from multiple deprivation. Are those children that are most at risk of being deprived in terms of education and personal development also at risk of being deprived of health and nutrition? How do these non-monetary dimensions of child deprivation interact with material deprivation? Thus in this section, we develop a measure of multiple deprivation in terms of the percentage of children who are deprived on a number of different dimensions: materially poor, lacking access to safe water, and missing out on education. This approach combines both the monetary measures of welfare with measures of deprivation in the spheres of health, education and basic needs.

There are two major methodological hurdles to overcome in examining multiple deprivation at the level of the individual child. First, the data for each of the different dimensions of deprivation need to be available in the same survey. Secondly, many of the indicators of child deprivation are age specific, so it will not be possible to develop a single summary indicator of multiple deprivation that is valid for children in of all ages. For example, information on child nutritional status is generally only collected for children aged under 5, whereas information on school attendance is only relevant for children of school age generally taken to be 7-16. In section 3 we have already examined the relationship between child nutrition and household socioeconomic status in some detail. This section therefore focuses on overlaps between different dimensions of child deprivation for children aged 7-16.   Three dimensions of deprivation are examined: being materially poor, missing out education and lacking access to safe drinking water.

Sixty-nine percent of children aged 7-16 are materially poor, i.e. live in households with per capita expenditures of less than $2.15 PPP a day, 11 percent are not in school and 49 percent lack access to clean water. However as Figure 30 shows, there is less overlap between the different spheres of deprivation than anticipated. Just 4 percent of Tajik children aged 7-16 are disadvantaged on all 3 dimension – accounting for around 70,000 children. But 32 percent are both materially poor and have poor access to clean water – around 550,000 children and just 17 percent are not deprived in any of the three dimensions. This varies according to location, with 25 percent of children living in urban areas not deprived in any of the three dimension compared with 14 percent in rural areas. The difference is primarily due to differences in access to water between urban and rural areas.

Materially Poor

16.5% of children 7-16 are not deprived in any of the 3 spheres
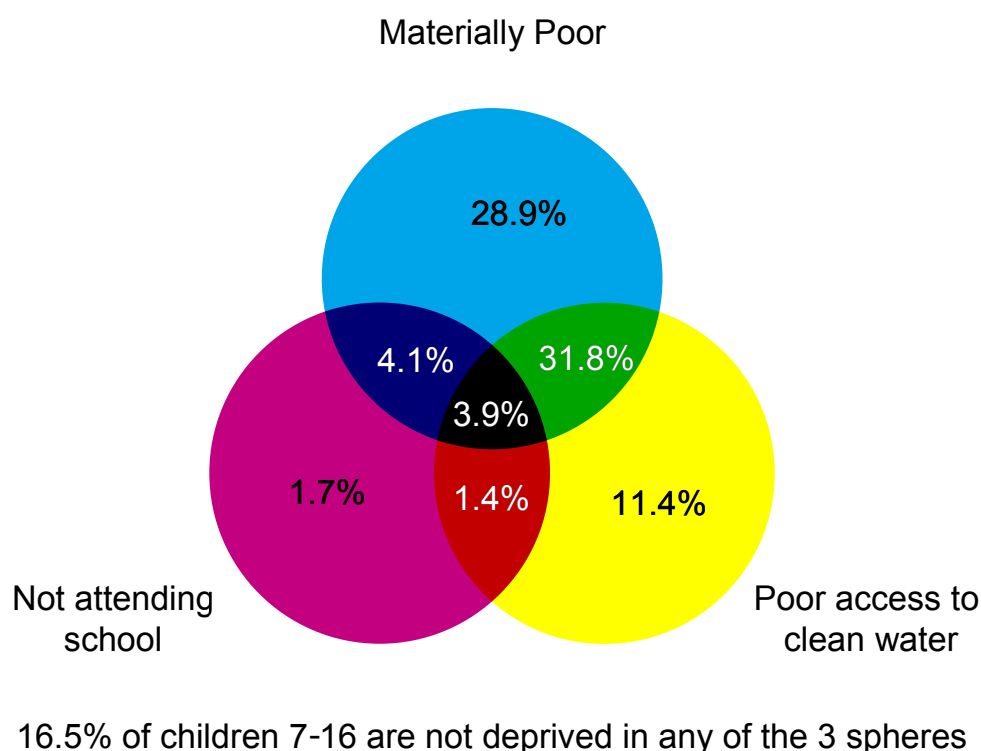
Source: authors' own analysis of TLSS 2003.

Note: the TLSS 2003 did not contain sufficient information to calculate the proportion of household with access to improved drinking water. Hence, we consider a household with access to clean water a household with access to piped water inside the dwelling, piped water outside the dwelling or from a spring or well and we defined a household having poor access if the household has only access to water truck, public tap, river or lake, or other. Education is defined as attendance in school between age 7 to 16 (primary and secondary school attendance).

In order to understand why some children experience multiple forms of deprivation it is crucial to understand which factors are associated with being deprived in more than one dimension and, more importantly for policy aimed at eliminating child poverty broadly defined, what are the factors which are associated with *not* being deprived in any dimension. In order to shed light on this, Table 38 presents the results of a logistic regression model for the probability that a child is not deprived in any of the three dimensions (column 1) and the probability that a child is deprived in at least two dimensions (column 2). As significant proportion of children appear to be both materially deprived and without access to clean water, the factors associated with being deprived in these two spheres is examine in column 3 (note that the dependant variable in column 3 is a particular sub-set of that in column 2).

Key findings include:

- Parental education plays a key role
    - children of highly educated mothers are almost 3 times more likely to be 'not deprived' on any dimension than if the mother that had a primary or lower level of education.
    - children with father with higher education are as much as 8 times more likely of not being deprived in any dimension.
- Children living in urban areas are twice as likely to be 'not deprived' than children living in rural areas.
- Interestingly girls are less likely to be 'not deprived' than boys. As both material poverty and access to water reflect household rather than individual characteristics, this most likely reflects gender inequalities in schooling.
- Place of residence appears to be a strong determinant of the likelihood that a child experience multiple forms of deprivation, with children living in rural areas being almost 4 times as likely to experience at least two forms of deprivation than children living in urban areas.
- In the special case of children who are both materially deprived and without access to clean water, place of residence is strongly significant and children living in rural areas are over 7 times more likely to be both materially deprived and without access to clean water (Table 38, column 3).

Father's work status was not significant in any of the regressions, confirming the weak association between paid employment and poverty found by other studies in Tajikistan (World Bank, 2005).

These findings confirm those in previous sections that place is important. Better data is required on the geography of child poverty in order to target interventions. However household characteristics are also significant. The important role of parental education in reducing the risk of poverty highlights the intergenerational transmission of poverty but also serves to remind us that investing in a child's education can help break the cycle of poverty.

7. ALLEVIATING CHILD POVERTY

Child poverty is complex and multidimensional, and alleviating child poverty necessarily involves a complex mix of actors, benefits and services from government, non-governmental organisations and the extended family and wider community.

In the past the state provided a comprehensive system of social assistance for families with young children, and material child poverty was largely unheard of. The economic dislocation during transition and the civil war weakened the ability of the State to continue to provide a universal system of benefits to all families with children. With insufficient resources and a growing number of families and children in 'need', the social assistance system was reformed, with a sharp reduction in the range of benefits and the introduction of targeting. Today in Tajikistan there is just one benefit payable to poor families with children from 6 to 15 years attending school – the cash compensation program (CCP).

In principle, CCP benefits are payable to the 20 percent poorest children in each school. School committees consisting of parents, teachers and local representatives are responsible for identifying the poorest children and allocating benefits. The fact that the CCP is paid via schools effectively excludes children who are not attending. Moreover, the low value of the benefit - two somoni per month (equivalent to around just US 60 cents) – means that it is unlikely to have a positive impact on the enrolment rate.   However, evidence from the TLSS 2003 suggests that the reformed CCP is poorly targeted with some better off children being in receipt whilst poor children miss out. The low value of the benefit means that it is ineffective in lifting children out of material poverty, rendering the formal state safety net impotent.

Cash remittances from household members currently living in another part of Tajikistan or abroad are now a key source of support for families with children. Between 500,000-1,000,000 Tajiks travel abroad - mainly to Russia - for seasonal work each year and it is estimated that their remittances contributed at least $600 million to the Tajik economy in 2006 (this compares to the total state budget of around $550 million). Thus remittances provide many families with a crucial source of income. However it is important not to overlook the negative impact on children of extended periods of separation from their parents. The qualitative study of child poverty found that many children would rather go without toys and other commodities and would prefer to have their parents at home.

Families are also coping in other ways (Figure 34). In the TLSS 2003 nearly a quarter of households reported that they had to borrow in the previous 6 months in order to cope. Informal safety nets – family, neighbours and friends – play an increasingly important role in child welfare. Worryingly, however, many of the coping strategies involve changing eating habits. Amongst the poorest households, expenditures on non food items have already been reduced so that only area in which economies can be made is food. Results from the TLSS 2003 show that 85 percent of the population consumed just one to two meals a day and over half of households in the poorest quintile ate an average of one meal *or less* a day. Young children should be fed at least 3-5 times a day to main-

tain good health and it is not surprising that over a third of children experience some form of anthropometric failure – being either stunted, wasted or underweight.

Figure 34: Proportion of household reporting having needed to engage in selected coping strategies in the last 6 months, TLSS 2003.
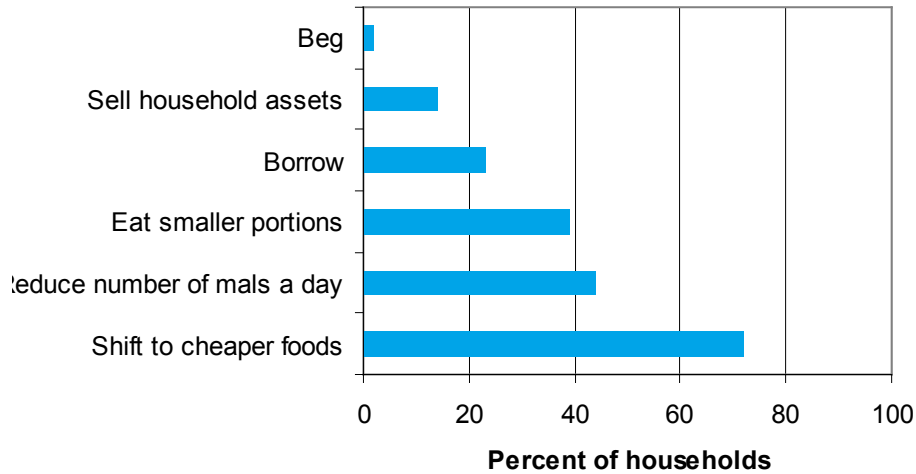
Source: authors' own analysis of TLSS 2003.

The analysis of child nutritional status, access to health care and education presented here highlight the urgent need for the Government to invest in key basic social services. Public spending on education constituted just 2.8 percent of GDP in 2004, whilst public spending on health care constituted just 1 percent of GDP. Without significantly increasing this investment children will continue to be deprived of the opportunity to develop to their fullest potential and the country will be deprived of the opportunity of a better educated, healthier, more socially integrated future labour force.

In addition to better basic social services, urgent action is also required to combat child labour and reduce child violence and abuse. This requires active enforcement of existing legislation along with new legislation and greater public awareness of these issues. The state must take the lead in recognising children's inherent rights. Only then will changes filter down through society.

TABLES

Table 1: Poverty rates in adult and child population, TLSS 2003.

	Headcount ($2.15 PPP a day 47.06 Somoni a month)	95 % CI
All	63.4	61.1-65.8
Child poverty (17 years old or less)	66.0	63.6-68.5
Male	65.0	62.4-67.6
Female	67.1	64.4-69.7
Adult (17 years old or above)	61.2	58.8-63.7
Male	61.3	58.7-63.8
Female	61.2	58.7-63.7

Source: authors' own analysis TLSS 2003.

Table 2: Child poverty by age, TLSS 2003.

Age group	Headcount ($2.15 PPP a day 47.06 Somoni a month)	95 % CI
0-2 yrs old	69.4	66.0-72.7
3-5 yrs old	68.8	65.9-71.8
6-10 yrs old	68.1	65.5-70.8
11-14 yrs old	62.6	59.6-65.5
15-17 yrs old	61.2	58.1-64.4
Child Poverty (17 yrs or less)	66.0	63.6-68.5

Source: authors' own analysis TLSS 2003.

Table 3: Child poverty by household size, TLSS 2003.

Household size	Headcount (2.15 $, 47.06 Somoni)	95 % CI
2	23.3	12.0-34.6
3	39.7	32.4-47.1
4	44.4	39.1-49.7
5	56.8	52.2-61.5
6	66.5	62.0-71.0
7 or more	71.0	68.1-74.0
Child Poverty (17 years old or less)	66.0	63.6-68.5

Source: authors' own analysis TLSS 2003.

Table 4: Child Poverty by parental education and work status, TLSS 2003.

	Headcount (2.15$, 47.06 Somoni)	95 % CI
Mother's education		
Primary or less	71.9	64.9-79.0
Secondary	67.1	64.7-69.6
Higher	41.3	33.4-49.2
Mother not in the hh or info missing	54.8	45.4-64.2
Father's education		
Primary or less	65.0	52.7-77.3
Secondary	68.8	65.9-71.6
Higher	52.8	48.2-57.4
Father not in the hh or info missing	67.4	63.6-71.2
Parental Work status		
Both working	64.4	60.8-68.0
None work	70.4	64.7-75.9
Mother only	66.5	57.8-75.3
Father only	66.7	62.8-70.5
Info missing	66.5	62.6-70.4

Source: authors' own analysis TLSS 2003.

Table 5: Logistic regression for the probability of a child under age 17 being poor.

	Urban	Rural
Age group		(2)
0-2	1	1
3-5	0.938	1.048
	(0.47)	(0.66)
6-10	0.930	1.040
	(0.56)	(0.43)
11-14	0.728	0.853
	(1.94)*	(1.88)*
15-17	0.743	0.760
	(2.05)**	(2.60)**
HHsize	1.241	1.108
	(4.40)***	(3.51)***
Oblast		
Sogd	0.432	0.282
	(1.82)*	(5.36)***
Khatlon	0.847	0.491
	(0.35)	(3.04)***
Dushanbe	0.304	
	(2.67)***	
RRS	0.217	0.077
	(2.93)***	(10.29)**
GBAO	1	1

	Urban	Rural
Gender		
Female	1.024	1.099
	(0.27)	(1.69)**
Male	1	1
Mother's education		
Primary or less	1	1
Secondary	0.359	1.187
	(2.55)**	(0.74)
Higher	0.186	0.709
	(3.76)***	(0.91)
Mother not in the hh or info missing	0.170	0.603
	(3.67)***	(1.42)
Father's education		
Primary or less	1	1
Secondary	1.860	0.969
	(0.97)	(0.07)
Higher	0.963	0.518
	(0.06)	(1.56)
Father not in the hh or info missing	3.589	1.089
	(1.51)	(0.16)
Parental Work Status		
None working	1	1
Both not working	2.034	1.237
	(2.40)**	(1.01)
Mother only	1.614	1.230
	(0.81)	(0.90)
Father only	1.690	0.957
	(2.27)**	(0.30)
Info missing	1.131	1.370
	(0.20)	(0.750)
Observations	3298	8615

Source: TLSS 2003.

Absolute value of t statistics in parentheses

*significant at 10%; **significant at 5%; ***significant at 1%.

Table 6: Odds Ratio for the probability of being poor by oblast, TLSS 2003.

	GBAO	Sogdian	Khatlon	Dushanbe	RRS
Place of Residence					
Urban	0.650	0.975	1.281		1.595
	(0.95)	(0.10)	(0.98)		(1.92)*
Rural	1	1	1		1
Age group					
0-2	1	1	1	1	1
3-5	0.948	1.118	0.825	1.038	1.041
	(0.16)	(0.87)	(1.50)	(0.23)	0.34)
6-10	0.939	0.902	1.017	1.036	1.055
	(0.20)	(0.66)	(0.11)	(0.22)	(0.40)

	GBAO	Sogdian	Khatlon	Dushanbe	RRS
11-14	0.839	0.764	0.688	0.763	0.938
	(0.45)	(1.62)	(2.45)**	(1.30)	(0.47)
15-17	0.688	0.654	0.710	0.794	0.816
	(1.25)	(2.54)**	(1.78)*	(1.38)	(1.19)
HHsize	1.409	1.184	1.262	1.114	1.065
	(3.81)***	(2.77)***	(4.85)***	(2.72)**	(1.76)*
Gender					
Female	1.070	1.098 .0	1.085	1.168	1.040
	(0.45)	(1.18)	(0.72)	(1.56)	(0.49)
Male	1	1	1	1	1
Mother's education					
Primary or less	1	1	1	1	1
Secondary	12.07	0.987	1.137	0.449	0.841
	(1.70)	(0.02)	(0.45)	(1.41)	(0.48)
Higher	4.162	0.488	1.944	0.151	0.102
	(0.89)	(0.99)	(1.05)	(3.17)***	(2.05)**
Mother not in the hh or info missing	9.043	0.561	0.785	0.372	0.366
	(1.50)	(0.76)	(0.47)	(1.37)	(1.77)*
Father's education					
Primary or less	1	1	1	1	1
Secondary	0	1.823	2.659	3.428	0.341
	(11.70)***	(0.95)	(2.13)**	(1.29)	(2.03)*
Higher	0	1.040	0.853	2.356	0.201
	(11.98)***	(0.06)	(0.33)	(0.98)	(2.83)***
Father not in the hh or info missing	0	2.470	2.020	25.43	0.355
	(10.19)***	(1.27)	(1.35)	(2.31)**	(0.89)
Parental Work Status					
None working	1	1	1	1	1
Both not working	0.916	0.986	1.184	2.762	1.670
	(0.13)	(0.05)	(0.41)	(2.27)**	(1.74)*
Mother only	--	1.033	1.361	2.454	1.257
	--	(0.08)	(0.76)	(1.74)*	(0.53)
Father only	1.036	0.627	1.272	1.855	1.622
	(0.07)	(2.36)**	(1.13)	(1.83)*	(1.68)
Info missing	1.093	0.857	1.227	0.361	2.340
	(0.11)	(0.31)	(0.49)	(0.87)	(0.83)
Observations	1101	3094	3774	1353	2525

Source: TLSS 2003.

Absolute value of t statistics in parentheses

*significant at 10%; **significant at 5%; ***significant at 1%.

Table 7: Infant and Under 5 Mortality and Maternal Mortality estimates, Tajikistan.

	Rate	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
UNICEF Multiple Indicator Cluster Survey 2005	65	
Official Government statistics	47.0	1993
Official Government statistics	43.6	2003
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
UNICEF Multiple Indicator Cluster Survey 2005	79	
Official Government statistics	63.4	1994
Maternal Mortality Ratio per 100,000 live births		
Official Government statistics	74	1993
Official Government statistics	39	2004
Hill et al, 2001	123	1996

Note: Official government statistics are those provided by the Tajik State Statistical Agency for the UNICEF Transmonee Database 2006.

Table 8: Percentage of children under age five severely or moderately undernourished.

	Year of Survey	% of children severely or moderately stunted	% of children severely or moderately wasted	% of children severely or moderately underweight
Tajikistan	2005	26.9	7.2	17.3
Albania	2000	31.7	11.1	14.3
Kyrgyzstan	1997	24.8	3.4	11.0
Turkmenistan	2000	22.3	5.7	12.0
Uzbekistan	2002	21.1	7.1	7.9
Azerbaijan	2000	19.6	8.0	16.8
Armenia	2000	13.0	2.0	2.6
Georgia	1999	11.7	2.3	3.1
Romania	2002	10.1	2.3	3.2
Bosnia & Herzegovina	2000	9.7	6.3	4.1
Kazakhstan	1999	9.7	1.8	4.2
FYR Macedonia	1999	6.9	3.6	5.9

Source: WHO Global Database on Child Growth and Malnutrition. http://www.who.int/nutgrowthdb/ and DHS.

Note: data for Kyrgyzstan refer to the 3 years prior the survey date.

Table 9: Chronic Malnutrition (Height for Age below 2 SD), MICS 2005.

	Global Chronic malnutrition <2 z-score							
	Children 6-59 months						Children 0-59 months	
	2003 NNS (%)	CI (95%)	2004 NNS (%)	CI (95%)	2005 MICS (%)	CI (95%)	2005 MICS (%)	CI (95%)
Dushanbe	n.a	n.a.	n.a.	n.a.	21.2	[18.2-24.2]	20.56	[17.7-23.7]
GBAO	25.3	[22.5-28.3]	30.3	[27.3-33.4]	31.7	[27.7-35.8]	29.7	[25.9-33.7]
Sughd	35.4	[32.3-38.7]	28.8	[26.0-31.8]	29.9	[26.4-33.6]	28.9	[25.6-31.8]
RRS	29.3	[26.4-32.4]	27.5	[24.7-30.5]	24.5	[21.5-27.6]	22.8	[20.0-25.8]
Kurgan Tube	30.1	[27.2-33.2]	32.6	[29.5-35.8]	30.9*	[28.0-34.0]	28.9*	[26.2-31.8]
Kulyab	34.2	[31.3-37.6]	37.6	[34.5-40.7]				
All region	30.9	n.a	31.4	[30.0-32.8]	28.4	[26.7-30.2]	26.9	[25.3-28.6]

Source: authors' own analysis of MICS 2005.

*Note: * value refers to Khatlon region; n.a: data not collected in Dushanbe city.*

Table 10: Acute Malnutrition (Weight for Height below 2 SD) by region, MICS 2005.

	Global Acute malnutrition <2 z-score							
	Children 6-59 months						Children 0-59 months	
	2003 NNS (%)	CI (95%)	2004 NNS (%)	CI (95%)	2005 MICS (%)	CI (95%)	2005 MICS (%)	CI (95%)
Dushanbe	n.a.	n.a	n.a.	n.a	6.6	[4.9-8.9]	6.8	[5.2-8.9]
GBAO	3.7	[2.7-5.2]	8.7	[4.7-10.7]	5.4	[3.8-7.6]	5.2	[3.7-7.2]
Sughd	3.3	[2.3-4.7]	2.4	[1.5-3.6]	4.2	[2.9-6.7]	4.0	[2.7-5.7]
RRS	4.0	[2.9-5.5]	6.1	[4.7-7.9]	7.5	[5.9-9.5]	7.8	[6.2-9.8]
Kurgan Tube	5.4	[4.1-7.1]	11.1	[9.1-13.3]	8.8*	[7.2-10.8]	9.2*	[7.6-11.1]
Kulyab	7.1	[5.6-9.0]	9.9	[8.2-12.0]				
All region	4.7	n/a	7.6	[6.8-8.4]	7.0	[6.1-8.0]	7.0	[6.3-8.0]

Source: authors' own analysis of MICS 2005.

*Note: * value refers to Khatlon region. n.a data not collected in Dushanbe city.*

Table 11: Child nutritional status by gender, place of residence and age, MICS 2005.

	Weight for age		Height for age		Weight for height			Number of children aged 0-59 months
	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% above 2 SD	
Sex		*	*	***				
Male	17.6	4.2	28.2	10.4	[7.1]	2.0	3.5	2053
Female	17.1	3.0	25.6	7.7	7.2	[1.1]	3.6	1983
Region	***	**	***	***	***		***	
Dushanbe	13.3	[2.7]	20.6	[8.8]	6.8	[1.4]	[5.6]	322
Khatlon	20.1	4.8	29.0	10.0	9.2	2.5	3.0	1613
Sogd	15.2	[2.4]	28.9	9.7	3.4	0	5.9	1127
RRS	16.1	[3.4]	22.8	6.4	7.8	[1.4]	[0.8]	891
GBAO	[20.1]	[4.5]	[29.7]	[11.5]	[5.2]	[1.5]	[3.0]	83
Residence								
Urban	17.2	3.2	26.1	9.3	7.4	2.4	4.0	1064
Rural	17.4	3.8	27.2	9.0	7.1	1.2	3.4	2972
Age	***	***	***	***	***	***	***	
<6 months	[4.5]	[1.1]	10.8	[1.2]	[8.7]	[1.6]	8.5	349
6-11 months	20.0	[3.4]	19.4	[4.7]	11.1	[1.5]	[2.6]	411
12-23 months	30.2	7.8	28.3	11.8	16.1	3.9	3.8	771
24-35 months	19.8	[4.9]	28.3	9.9	6.0	[1.2]	3.4	845
36-47 months	12.5	[1.8]	30.4	9.8	[2.5]	[0.1]	3.2	837
48-59 months	11.8	1.3	31.3	10.6	[2.0]	[0.1]	[2.2]	821
Total	17.3	3.6	26.9	9.1	7.2	1.6	3.6	4036

Source: authors' own analysis of MICS 2005.

Table 12: Child nutritional status by mother's education, MICS 2005.

	Weight for age		Height for age		Weight for height			(N)
	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% above 2 SD	
Mother's education		*	*					
Primary or less	[18.1]	[3.2]	[28.4]	[8.5]	[4.9]	[1.3]	[5.5]	120
Incomplete Secondary	16.7	3.3	25.6	7.7	7.0	[0.07]	[3.0]	1109
Complete Secondary	18.1	4.0	28.1	10.0	7.6	2.0	3.8	2585
Higher education	[12.4]	[1.0]	19.4	[6.3]	[4.4]	[0.5]	[2.4]	219
Total	17.3	3.6	26.9	9.1	7.2	1.6	3.6	4036

Source: authors' own analysis of MICS 2005.

Table 13: Child nutritional status by household wealth, MICS 2005.

	Weight for age		Height for age		Weight for height			Number of children aged 0-59 months
	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% above 2 SD	
Wealth index quintiles	***	**	***	**				
Poorest	23.4	4.9	31.9	11.5	8.7	[1.4]	[3.3]	880
Second	18.8	4.0	28.9	9.6	6.3	[1.7]	[3.9]	776
Middle	18.6	[3.9]	29.8	9.8	9.7	[2.5]	[3.5]	751
Fourth	14.1	[2.9]	24.0	7.9	7.0	[1.4]	[3.2]	821
Richest	11.4	[2.0]	19.8	6.6	4.1	[0.9]	[4.2]	808
Total	17.3	3.6	26.9	9.1	7.2	1.6	3.6	4036

Source: authors' own analysis of MICS 2005.

Table 14: Child nutritional status by ethnicity, MICS 2005.

	Weight for age		Height for age		Weight for height			Number of children aged 0-59 months
	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% above 2 SD	
Ethnicity	**	**		*	**			
Tajik	17.6	4.0	27.5	9.7	8.0	1.9	3.5	2893
Uzbek	16.9	[2.5]	25.7	7.5	5.1	[0.1]	3.7	1055
Russian	0	0	[10.1]	0	0	0	[4.5]	28
Kyrgyz	[39.3]	[15.7]	[31.8]	[18.8]	7.5	0	0	12
Other	[17.0]	[3.6]	[25.2]	[7.4]	5.3	[1.9]	[5.0]	48
Total	17.3	3.6	26.9	9.1	7.2	1.6	3.6	4036

Source: authors' own analysis of MICS 2005.

Table 15: Child nutritional status by household access to own food production, MICS 2005.

	Weight for age		Height for age		Weight for height			Number of children aged 0-59 months
	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% above 2 SD	
Access to land								
Yes	17.3	3.6	27.6	9.1	7.3	1.4	3.4	2970

	Weight for age		Height for age		Weight for height			Number of children aged 0-59 months
No	17.4	3.5	24.9	9.1	6.8	1.8	4.0	1066
Ownership of livestock								
Yes	16.8	3.7	26.4	9.0	7.3	1.6	3.4	2673
No	18.3	3.5	27.8	9.4	6.9	1.3	4.0	1363
Sources of water	***							
Improved	16.2	3.4	26.6	9.0	6.2	1.5	3.8	2678
Not Improved	19.7	4.0	27.6	9.0	9.2	1.6	3.1	1358
Total	17.3	3.6	26.9	9.1	7.2	1.6	3.6	4036

Source: authors' own analysis of MICS 2005.

Table 16: Odds ratio for the probability that a child is moderately underweight, stunted or wasted, MICS 2005.

	Child Underweight Below 2SD, WA	Child Stunted Below 2SD, HA	Child Wasted Below 2SD, WH
Age group in months			
Less than 6 months	0.173	0.478	0.729
	(5.16)***	(2.62)***	(1.10)
6-11 months (ref cat)	1.000	1.000	1.000
12-23	1.737	1.626	1.592
	(3.15)***	(2.60)***	(2.18)**
24-35	0.974	1.650	0.499
	(0.15)	(2.82)***	(2.87)***
36-47	0.549	1.821	0.204
	(3.05)***	(3.34)***	(4.84)***
48-59	0.519	1.929	0.164
	(3.34)***	(3.62)***	(5.17)***
Region			
Khatlon	1.324	1.406	1.156
	(2.02)**	(2.86)***	(0.82)
Dushanbe	1.008	1.178	1.128
	(0.04)	(0.92)	(0.44)
Sogd	0.895	1.420	0.484
	(0.70)	(2.77)***	(3.02)***
RRS (ref cat)	1.000	1.000	1.000
GBAO	1.305	1.680	0.552
	(1.25)	(2.80)***	(1.85)*
Mother's education			
Secondary or lower	1.048	1.238	1.148
	(0.17)	(0.93)	(0.35)
High (ref cat)	1.000	1.000	1.000

	Child Underweight Below 2SD, WA	Child Stunted Below 2SD, HA	Child Wasted Below 2SD, WH
Wealth quintile			
Poorest	3.395	2.335	2.717
	(5.32)***	(4.57)***	(3.23)***
Second	2.510	2.009	1.873
	(4.07)***	(3.81)***	(2.00)**
Third	2.506	2.207	3.009
	(4.08)***	(4.42)***	(3.70)***
Fourth	1.672	1.558	2.138
	(2.35)**	(2.61)***	(2.72)***
Richest (ref cat)	1.000	1.000	1.000
Ethnicity			
Tajik	1.000	1.000	1.000
Uzbek	1.002	0.910	0.639
	(0.02)	(0.86)	(2.34)**
Kyrgyz	3.569	1.255	1.168
	(2.24)**	(0.55)	(0.21)
Other	1.103	0.860	1.110
	(0.40)	(0.62)	(0.27)
Sanitation			
HH with access to improved drinking water (ref cat)	1.000	1.000	1.000
HH with NO access to improved drinking water	1.024	0.891	1.260
	(0.20)	(1.07)	(1.40)
Access to land			
HH with access to land (ref cat)	1.000	1.000	1.000
HH with NO access to land	1.413	0.999	1.361
	(2.15)**	(0.01)	(1.43)
Ownership of livestock			
HH owns livestock (ref cat)	1.000	1.000	1.000
HH does NOT own livestock	1.426	1.376	1.193
	(2.51)**	(2.78)***	(0.89)
Observations	4034	4034	4034

Source: MICS 2005.

Absolute value of t statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 17: Group of anthropometric failure for moderate and severe levels for children under 5, MICS 2005.

	Moderate anthropometric failure		Severe anthropometric failure	
Groups	Number of children	% of children	Number of children	% of children
No failure	2619	65.0	3572	88.5
Wasted only, WH	87	2.1	33	0.8
Wasted & Underweight, WH, WA	144	3.6	27	0.7
Wasted, Stunted & Underweight, WH, WA, HA	58	1.4	3	0.1
Stunted & Underweight, HA, WA	399	9.9	80	2.0
Stunted Only	630	15.6	284	7.0
Underweight only	99	2.4	37	0.9
	4036	100	4036	100

Source: authors' own analysis of MICS 2005.

Table 18: Nutritional status by breastfeeding pattern for children less than 18 months.

	Weight for age		Height for age		Weight for height		Number of children aged 18 months or less
	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	% below -2SD	%below -3 SD	
Infant feeding pattern	**		**	*	***		
Breastfeed exclusively and using other products	18.7	5.8	19.7	8.2	13.3	5.4	1081
Weaned (not breastfeed)	29.6	7.7	27.8	12.9	24.5	4.0	207
Total	20.5	6.1	21.0	9.0	15.1	5.2	1279

Source: authors' own analysis of MICS 2005.

Table 19: Pattern of breastfeeding for children 0-59 months by gender and age group, MICS 2005.

	Exclu-sively breast-feeding	Breast-feeding and plain water	Breast-feeding and non milk products	Breast-feed-ing and other milk /formula	Breast-feed-ing and comple-mentary foods	Weaned (not breast-feed)	Tot Number of obser-vation
Sex							
Male	2.4	1.4	9.5	9.2	10.1	67.4	2053
Female **	2.4	1.7	9.4	8.3	9.2	68.9	1983
Age group							
<6	23.4	12.8	35.3	18.8	4.7	[5.0]	349
6-11	[1.2]	[3.0]	34.2	28.0	20.4	13.3	411
12-23	[1.3]	[0.8]	14.4	16.4	24.6	42.5	770
24-35	[0.1]	0	0	3.8	7.7	88.4	845
36-47	0	0	0	0	[2.8]	96.2	837
48-59	0	0	0	0	[1.4]	97.7	821
Total	2.42	1.6	9.5	8.7	9.6	68.2	4036

Source: authors' own analysis of MICS 2005.

Table 20: Pattern of breastfeeding for children 0 to 59 months by place of residence and ethnicity and socioeconomic household characteristics, MICS 2005.

	Exclu-sively breast-feeding	Breast-feeding and plain water	Breast-feeding and non milk products	Breast-feed-ing and other milk /formula	Breast-feed-ing and comple-mentary foods	Weaned (not breast-feed)	Tot Number of obser-vation
Region ***							
Dushanbe	[2.3]	[1.7]	[6.1]	[8.4]	10.6	70.8	321
Khatlon	1.9	1.5	11.6	10.3	6.2	68.6	1613
Sogd	4.0	[1.4]	9.6	5.5	13.8	65.7	1127
RRS	[1.2]	[2.0]	7.2	9.8	10.2	69.6	891
GBAO	4.6	9.7	3.2	11.0	12.5	67.6	82
Place of residence ***							
Urban	[1.7]	[1.2]	8.2	7.1	11.2	70.5	1064
Rural	2.6	1.7	9.9	10.3	9.1	67.4	2972
Mother's education							
Primary or less	[0.8]	0	[14.0]	[7.1]	[8.4]	68.9	120
Incomplete Secondary	2.8	[1.9]	10.7	10.3	9.4	64.8	1109
Complete Secondary	2.3	1.5	8.9	8.3	9.8	69.3	2585

	Exclu-sively breast-feeding	Breast-feeding and plain water	Breast-feeding and non milk products	Breast-feed-ing and other milk /formula	Breast-feed-ing and comple-mentary foods	Weaned (not breast-feed)	Tot Number of obser-vation
Higher education	[2.7]	[2.1]	[7.3]	[5.9]	[9.8]	72.2	219
Non standard/ missing	0	0	0	[50]	0	[50]	3
Wealth Quintile							
Poorest	[2.3]	[1.4]	11.9	8.6	9.9	65.8	880
Second	[2.2]	[1.9]	9.5	10.2	7.5	68.7	776
Middle	[3.7]	[1.2]	8.4	10.5	9.3	66.9	751
Fourth	[2.4]	[1.8]	9.8	9.0	9.0	67.9	821
Richest **	[1.7]	1.5	7.2	5.6	12.3	71.6	808
Ethnicity							
Tajik	2.3	1.6	9.2	8.3	10.3	68.3	2893
Uzbek	[2.5]	[1.6]	10.5	9.9	7.6	67.7	1055
Russian	[1.1]	0	[2.1]	[2.1]	[16.9]	[77.9]	28
Kyrgyz	0	[5.6]	[7.5]	[11.1]	[12.4]	[63.4]	12
Other	[9.5]	[0.6]	[0.3]	[10.2]	[12.4]	[64.5]	47.9
Total	2.4	1.6	9.5	8.7	9.6	68.2	4036

Source: authors own analysis of MICS 2005.

Table 21: Access to improved drinking water for children under 5 years old by type of water connection, MICS 2005.

	Percentage
Improved drinking water	**65.9**
Piped into dwelling	21.5
Piped into yard/plot	12.7
Public tap/stand pipe	20.6
Tubewell/borehole	4.4
Protected well	2.3
Protected spring	4.4
Rainwater	0.0
Not Improved	**34.1**
Unprotected well	1.0
Unprotected spring	1.6
Tanker-truck	1.1
Cart with tank/drum	0.0
Surface	28.2
Other	2.2
Total	100

Source: authors' own analysis of MICS 2005.

Table 22: Typology of toilet facility in the house for children under 5 years old by type of water connection, MICS 2005.

	Percentage
Improved sanitation	**93.9**
Flush/pour flush to piped sewer system	13.0
Flush/pour flush to piped septic tank	0.6
Flush/pour flush to pit latrine	1.0
Ventilated improved pit latrine	0
Pit latrine with slab	79.3
Not Improved	**6.1**
Flush/pour flush to somewhere else	0
Flush/pour flush to unknown place/not sure/ DK	0
Pit latrine without slab/open pit	5.5
Bucket	0
No facilities/bush/field	0.4
Other	0
Total	100

Source: authors' own analysis of MICS 2005.

Table 23: Access to improved drinking and sanitation water for children under 5 by residence and wealth quintile, MICS 2005.

	Water access			Sanitation facility		
	Improved drinking water	Not Improved	Total	Improved sanitation	Not Improved	Total
Place of residence ***						
Urban	93	7.00	100	97.3	2.7	100
Rural	56.2	48.8	100	92.7	7.3	100
Region ***						
Dushanbe	95.0	5.0	100	99.6	0.4	100
Khatlon	51.3	48.7	100	92.3	7.7	100
Sogd	74.7	25.3	100	94.3	5.7	100
RRS	72.5	27.5	100	94.9	5.1	100
GBAO	49.7	50.3	100	88.5	11.5	100
Wealth quintile ***						
Poorest	43.8	56.2	100	88.3	11.7	100
Second	59.6	40.4	100	90.3	9.7	100
Middle	60.7	39.3	100	96.6	3.3	100
Fourth	73.0	27.0	100	95.8	4.2	100
Richest	94.9	5.1	100	93.9	6.1	100
Total	65.9	34.1	100	93.9	6.1	100

Source: authors' own analysis of MICS 2005.

Note: the table has been calculated considering 4370 children under 5 years old with the exception of the percentage of children with access to improved drinking water or improved sanitation by wealth quintile which is based on 4273 children as the information on wealth quintile was missing for some households.

Table 24: Health care use by age and gender (%), TLSS 2003

	Sought medical assistance in last month		Needed medical assistance, but did not seek	
	Boys	Girls	Boys	Girls
Under 3	6.7	5.3	1.3	0.9
3-5	3.2	3.4	0.5	0.6
6-10	2.5	2.7	0.6	0.7
11-14	2.2	2.8	1.0	0.9
15-17	2.7	2.9	0.6	0.8
Total 0-17	3.3	3.3	0.8	0.8
18-44	4.0	8.1	1.3	1.9
45-64	8.8	14.6	3.4	4.5
65+	17.9	20.0	5.5	6.4
Total pop	4.7	7.2	0.9	1.9

Source: authors' own analysis of TLSS 2003.

Table 25: Hospitalization rates by age and gender (%), TLSS 2003.

	Hospitalised in last year	
	Boys	Girls
Under 3	3.2	1.8
3-5	1.2	0.6
6-10	1.4	1.6
11-14	1.2	1.5
15-17	1.5	1.8
Total 0-17	1.6	1.5
18-44	2.7	5.8
45-64	4.3	7.8
65+	7.7	7.8
Total pop	2.5	4.2

Source: authors' own analysis of TLSS 2003.

Table 26: Amongst those making payment, mean(median value of out-of-pocket payments for consultations and associated medication in last month, TLSS 2003

Children under 18	Mean	Median
Official Payments	9.33	3.0
Informal Gifts (inc. money)	5.53	2.0
Cost of travel to consultation	7.10	2.0
Prescription medication	21.83	10.0
Other medicine	5.62	3.0

Source: authors' own analysis of TLSS 2003.

Note: values expressed in Somoni. In June 2003 US $1=3.1 Somoni.

Table 27: Proportion paying for services during hospitalization, TLSS 2003.

	Under 18	18 and over
Medicines	85	84
Food	41	47
Other supplies	82	83
Hospital charges (inc lab)	91	88
Physician charges	68	65
Ancillary staff charges	60	60
Other payments, including gifts	20	20

Source: authors' own analysis of TLSS 2003.

Table 28: Percentage of children aged 36-59 months who are attending some form of organized early childhood education programme, MICS 2005.

	Preschool attendance	Number of children
Gender		
Male	10.6	849
Female	9.8	870
Region	***	
Dushanbe	33.5	138
Khatlon	6.3	694
Sogd	13.9	479
RRS	4.0	372
GBAO	9.2	36
Residence	***	
Urban	24.6	484
Rural	4.6	1235
Age		
36-47 months	10.0	865
48-59 months	10.4	854
Mother's education	***	
Primary or less	4.3	49
Incomplete secondary	7.8	420
Complete Secondary	8.7	1158
Higher	44.2	90
Wealth quintile	***	
Poorest	[1.2]	378
Second	[4.3]	339
Middle	[4.4]	288
Fourth	10.2	341
Richest	20.3	373
Ethnicity	***	
Tajik	10.4	1236
Uzbek	8.3	440
Russian	[48.6]	16
Kyrgyz	6.7	6
Other	[10.3]	21
Total	10.2	1719

Source: authors' own analysis TLSS 2003.

Table 29: Percentage of first graders who attended pre-school, MICS 2005.

	First graders who attended pre-school	Number of children
Gender		
Male	31.2	329
Female	27.8	325
Region	***	
Dushanbe	75.8	72
Khatlon	9.3	343
Sogd	45.8	124
RRS	38.4	99
GBAO	[72.0]	16
Residence		
Urban	60.2	177
Rural	18.1	477
Age	***	
6	43.6	137
7	25.3	512
Mother's education	***	
Primary or less	[13.0]	11
Incomplete secondary	34.8	103
Complete Secondary	26.1	493
Higher	56.9	47
Wealth quintile	***	
Poorest	[10.9]	137
Second	[16.2]	165
Middle	[16.4]	95
Fourth	44.3	109
Richest	59.0	148
Ethnicity	***	
Tajik	30.6	455
Uzbek	23.5	186
Russian	100	1
Kyrgyz	[27.3]	2
Other	[83.6]	10
Total	29.5	654

Source: authors' own analysis TLSS 2003.

Table 30: Enrolment rates by child and parental characteristics, TLSS 2003.

	Enrolment in Primary 7-10	Enrolment in Lower Secondary 11--15	Enrolment in Upper Secondary 16-17
Gender		**	**
Male	85.7	95.2	78.6
Female	84.8	90.3	58.4
Mother's education		**	*
Primary and lower	83.7	83.8	58.2
Secondary	85.1	93.1	69.5
Higher	87.2	98.1	84.4
Mother not in hh or info not available	89.8	90.6	50.7
Father 's education		*	**
Primary and lower	72.3	87.4	61.9
Secondary	84.9	93.6	68.4
Higher	87.8	94.5	79.7
Father not in hh or info not available	85.4	89.6	59.8
Father working status			
No working	85.2	93.4	70.5
Working	83.0	90.8	67.0
Father not in hh or info not available	89.4	91.5	58.9
Poverty status			*
Poor	84.7	92.9	73.2
Non Poor	86.7	92.8	66.1
Place of residence		**	
Urban	85.1	89.1	65.5
Rural	85.3	94.2	69.6
Region		**	**
Gbao	90.5	97.0	90.8
Sogdian	85.8	94.9	72.7
Kahtlon	85.8	92.4	65.5
Dushanbe	82.5	84.6	66.4
RRS	84.3	93.7	65.4
Total	85.3	92.8	68.6

Source: authors' own analysis TLSS 2003.

Table 31: Odds ratio of multilevel logistics model of the probability to attend education for children 7 to 17 years old, TLSS 2003.

	Model 1: *Basic*	Model 2: *Accessibility Availability*	Model 3: *Quality of education*	Model 4: *Opportunity cost*	Model 5: *Economic ......*	Model 6: *FINAL MODEL*
Age groups						
7-11	1	1	1	1	1	1
12-14	2.144***	2.144***	2.155***	2.146***	2.138***	2.148***
	(0.109)	(0.108)	(0.109)	(0.109)	(0.109)	(0.108)
15-16	0.765**	0.764**	0.766**	0.766**	0.763**	0.766**
	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)
17	0.178***	0.178***	0.178***	0.178***	0.176****	0.178***
	(0.103)	(0.103)	(0.103)	(0.103)	(0.104)	(0.103)
Place of residence						
Rural	1.267	1.294	1.292	1.032	1.692**	1.346
	(0.146)	(0.140)	(0.143)	(0.162)	(0.170)	(0.174)
Urban	1	1	1	1	1	1
Gender						
Female	0.553***	0.552***	0.553***	0.553***	0.555***	0.555***
	(0.076)	(0.076)	(0.076)	(0.076)	(0.076)	(0.075)
Male	1	1	1	1	1	1
Mother's education						
Primary or lower	1	1	1	1	1	1
Secondary	1.496*	1.474*	1.491*	1.488*	1.461*	1.419*
	(0.163)	(0.163)	(0.164)	(0.163)	(0.163)	(0.163)
Higher	3.100***	3.043***	3.083***	3.070***	2.906***	2.823***
	(0.281)	(0.280)	(0.280)	(0.280)	(0.282)	(0.280)
Mother not in the hh	1.306	1.279	1.302	1.284	1.267	1.203
	(0.258)	(0.258)	(0.258)	(0.258)	(0.259)	(0.258)
Father's education						
Primary or lower	1	1	1	1	1	1
Secondary	1.431	1.450	1.426	1.452	1.430	1.482
	(0.235)	(0.234)	(0.235)	(0.235)	(0.235)	(0.234)
Higher	2.000**	2.020**	1.979**	2.011**	2.000**	2.028**
	(0.255)	(0.254)	(0.255)	(0.255)	(0.255)	(0.253)
Father not in the hh	1.277	1.277	1.266	1.284	1.265	1.294
	(0.244)	(0.243)	(0.244)	(0.244)	(0.244)	(0.242)
Poverty status						
Poor	0.806*	0.804*	0.809*	0.817*	0.812*	0.826*
	(0.089)	(0.089)	(0.089)	(0.089)	(0.089)	(0.088)
Non poor	1	1	1	1	1	1
Availability of State Complete Secondary		1.459**				0.436***
		(0.122)				(0.120)
State Complete Secondary non available		1				1

	Model 1:	Model 2:	Model 3:	Model 4:	Model 5:	Model 6:
	Basic	*Accessibility Availability*	*Quality of education*	*Opportunity cost*	*Economic ......*	*FINAL MODEL*
Perception of Quality of Schooling						
Good			1			1
Satisfactory			0.837			0.859
			(0.134)			(0.130)
Bad			0.490**			0.567*
			(0.255)			(0.254)
Opportunity cost				0.560**		0.549***
Prop of land b/w 0-5 degrees slope				(0.201)		(0.181)
Level of Development						
Dependency Ratio					0.193**	0.353*
					(0.553)	(0.471)
Observations	7344	7344	7344	7344	7344	7344
Rayon level Variance	0.199**	0.155**	0.150*	0.137*	0.167**	0.024
	(0.072)	(0.063)	(0.063)	(0.060)	(0.066)	(0.036)
PSU level Variance	0.231***	0.223***	0.236***	0.243***	0.236***	0.256***
	(0.062)	(0.061)	(0.062)	(0.063)	(0.063)	(0.063)

Source: TLSS 2003, derived GIS variables, aggregated census variables, Tajikistan Community Survey 2003.

Absolute value of t statistics in parentheses

*significant at 10%; **significant at 5%; ***significant at 1%.

Table 32: Percentage of children aged 5-14 years who are involved in child labour activities by type of work, MICS 2005.

	(1) Paid work	(2) Any un-paid work	(3) Any house-hold chores	(4) House-hold chore for 28+ hours/ week	(5) Work-ing for family busi-ness	(6) Any child labour (1+2 +4+5)	Number of chil-dren
Gender			***	**		**	
Male	3.6	3.7	63.5	4.6	2.1	11.5	5797
Female	3.5	3.7	70.6	5.9	2.1	12.8	5247
Region	***	***	***	***	***	***	
Dushanbe	[0.3]	[0.6]	53.1	[0.4]	3.1	4.2	863
Khatlon	5.7	5.5	67.2	4.5	2.4	14.5	4119
Sogd	2.8	2.9	73.2	6.3	2.9	13.3	3126
RRS	1.2	1.5	62.1	5.9	0.4	8.1	2666

	(1) Paid work	(2) Any un-paid work	(3) Any house-hold chores	(4) House-hold chore for 28+ hours/ week	(5) Work-ing for family busi-ness	(6) Any child labour (1+2 +4+5)	Number of chil-dren
GBAO	12.9	17.7	79.7	13.3	0.8	28.0	270
Residence			***	***	***		
Urban	3.5	3.9	62.9	2.4	3.6	11.4	2862
Rural	3.6	3.6	68.3	6.2	1.6	12.4	8182
Age group	**	***	***	***	***	***	
5-11	3.3	2.3	57.7	2.2	1.2	6.4	7678
12-14	4.1	6.8	87.9	12.1	4.2	25.3	3364
School Participation	***	***	***	***		***	
Yes	4.2	4.4	77.8	6.5	2.2	14.5	8316
No	1.6	1.5	33.6	1.5	1.7	4.9	2728
Mother's education		**	***	**	***	**	
Primary or less	[2.9]	[1.3]	61.5	[2.7]	[6.9]	12.6	280
Incomplete secondary	2.3	1.8	59.8	5.1	[1.1]	9.3	1789
Complete Secondary	3.8	4.0	68.5	5.6	2.2	12.9	8402
Higher	4.6	5.1	68.7	[2.2]	[1.5]	10.0	573
Wealth quintile			***	***	**	***	
Poorest	3.4	2.4	67.8	8.3	2.7	14.9	2409
Second	5.0	4.5	68.7	6.1	2.0	14.7	2400
Middle	3.4	4.1	68.5	5.2	0.7	10.5	2155
Fourth	2.8	3.4	67.7	4.2	2.1	10.0	2009
Richest	2.9	4.1	61.2	1.7	2.8	9.7	2071
Ethnicity				***		***	
Tajik	3.2	3.8	64.5	4.9	2.2	11.6	8172
Uzbek	4.0	2.2	73.8	5.8	1.9	12.3	2630
Russian	[5.6]	[5.6]	66.9	[0]	6.8	[6.8]	40
Kyrgyz	[7.5]	[9.4]	[71.6]	[25.7]	[0]	[33.8]	38
Other	[13.8]	17.5	78.5	[13.6]	0.6	[28.2]	157
Missing	[50]	[100]	[0]	[0]	[0]	[1]	7
Total	3.6	3.7	66.9	5.3	2.1	12.2	11042

Source: authors' own analysis MICS 2005.

Table 33: Percentage of children aged 5-14 years who are labourer students and student labourers, MICS 2005.

	% of working children attending school	Number	% of students who are in- volved in child labour	Number
Gender			**	
Male	90.8	544	11.1	4445
Female	87.3	558	12.6	3871
Region			***	
Dushanbe	[85.7]	21	2.6	699
Khatlon	89.7	473	13.6	3132
Sogd	87.3	349	12.7	2389
RRS	89.9	196	9.4	1880
GBAO	91.8	63	26.9	215
Residence	***		***	
Urban	74.3	232	7.7	2230
Rural	92.9	870	13.3	6086
Age group			***	
5-11	89.7	494	8.6	5163
12-14	88.4	608	17.1	3153
Mother's education	***		**	
Primary or less	[50.3]	34	[8.9]	187
Incomplete secondary	79.6	143	9.6	1189
Complete Secondary	91.5	881	12.5	6439
Higher	96.8	44	8.5	500
Wealth quintile	**		***	
Poorest	86.1	327	16.3	1731
Second	89.0	294	14.7	1772
Middle	88.7	195	10.6	1621
Fourth	94.8	161	10.0	1526
Richest	89.8	125	6.7	1665
Ethnicity				
Tajik	85.5	761	10.7	6062
Uzbek	97	285	13.5	2058
Russian	[1]	3	8.6	31
Kyrgyz	[90.2]	12	[39.2]	28
Other	95.1	38	27.6	130
Missing	[1]	3	[3.2]	7
Total	89.0	1102	11.8	8316

Source: authors' own analysis of MICS 2005.

Table 34: Percentage of children aged 2-14 years who have been subjected to various methods of child discipline in the month prior to the interview, MICS 2005.

Method of discipline	Boys	Girls
Took away privileges, forbade something *child* liked or did not allow him/her to leave house.	67.7	66.3
Explained why something (the behaviour) was wrong.	83.5	83.8
Shook him/her	36.9	34.0
Shouted, yelled at or screamed at him/her.	67.2	62.5
Gave him/her something else to do.	38.7	32.9
Spanked, hit or slapped him/her on the bottom with bare hand.	38.0	31.3
Hit him/her on the bottom or elsewhere on the body with something like a belt, hairbrush, stick or other hard object	8.6	5.9
Called him/her dumb, lazy, or another name like that.	41.0	34.4
Hit or slapped him/her on the face, head or ears.	16.5	13.3
Hit or slapped him/her on the hand, arm, or leg.	28.4	22.3
Beat him/her up with an implement (hit over and over as hard as one could).	4.8	2.5
Do you believe that in order to bring up (raise, educate) children properly, you need to physically punish them?	16.7	12.8
(N)	2826	2544

Source: authors' own analysis of MICS 2005.

Table 35: Percentage of children 2-14 years according to the method of disciplining the child, MICS 2005.

	Only non violent discipline	Psychological punishment	Minor Physical Punishment	Severe physical Punishment	Any psychological or physical punishment	No discipline or punishment	Believes that the child needs to be physically punished	(N)
Gender	***	***	***	**	***		**	
Male	16.0	71.5	57.6	21.6	76.7	7.2	16.7	2826
Female	21.2	67.1	50.7	16.5	71.8	7.0	12.8	2544
Region	***	***	***	***	***	**	***	
Dushanbe	18.0	69.4	51.9	20.0	74.5	7.5	6.1	485
Khatlon	11.5	79.4	65.4	24.8	82.6	5.9	17.6	1834
Sogd	18.8	66.6	48.9	13.1	73.2	7.9	14.7	1702
RRS	28.9	59.0	45.9	19.8	64.0	7.1	15.7	1201
GBAO	15.6	63.2	55.4	11.3	69.3	11.1	4.7	148
Residence			**			**	***	
Urban	17.5	69.6	52.2	20.9	74.1	8.3	11.9	1581
Rural	18.9	69.4	55.2	18.4	74.5	6.6	16.1	3789
Age group	**	***	**	**	***		***	
2-4	19.8	59.3	52.8	17.8	65.9	14.2	12.4	1164
5-9	16.5	73.4	58.2	21.5	78.3	5.2	15.5	1929

	Only non violent discipline	Psycho-logical punish-ment	Minor Physical Punish-ment	Severe physical Punish-ment	Any psy-chological or physi-cal pun-ishment	No disci-pline or punish-ment	Believes that the child needs to be physi-cally pun-ished	(N)
10-14	19.5	71.3	51.8	17.9	75.3	5.1	15.6	2277
Mother's education				**		**	**	
Primary or less	[19.2]	71.4	54.8	[16.9]	73.5	[7.3]	[18.5]	150
Incomplete secondary	18.2	69.6	56.6	23.8	74.1	7.7	17.3	965
Complete secondary	18.1	69.9	54.6	18.9	75.0	6.9	14.1	3896
Higher education	23.8	63.8	45.3	10.8	69.5	6.6	8.7	357
Wealth quintile			**	*			**	
Poorest	18.6	70.6	59.1	22.4	75.7	5.7	21.2	1005
Second	18.9	68.1	54.3	19.2	73.4	7.7	15.7	1040
Middle	18.4	70.9	55.8	19.1	75.2	6.3	15.4	1068
Fourth	18.9	67.8	51.6	16.5	72.9	8.1	11.3	1042
Richest	17.7	69.7	51.2	18.7	74.7	7.6	11.3	1215
Ethnicity		**		**	**			
Tajik	17.9	70.2	53.8	20.2	74.5	7.5	14.8	3889
Uzbek	19.2	68.7	56.6	16.8	75.2	5.6	15.8	1316
Russian	[18.5]	64.6	[49.6]	[16.9]	73.2	[8.3]	[8.6]	48
Kyrgyz	[31.5]	47.2	[45.8]	[14.7]	56.5	[12.1]	[6.7]	21
other	[24.8]	56.8	46.6	[8.9]	61.7	[13.4]	[7.5]	92
Missing	[1]	[0]	[0]	[0]	[0]	[0]	[0]	4
Total	18.5	69.4	54.3	19.2	74.4	7.1	14.8	5370

Source: authors' own analysis of the MICS 2005.

Note: the table is based on children 2-14 years randomly selected during fieldwork (one child selected per household, if any children in the age range) for whom the questions on child discipline were administered. In the questionnaire respondents were asked about the methods used to teach children the right behaviour or address a behavioural problem. Respondents were asked if they have used certain type of methods. The table above used the follow definition of physical violence:

1) Minor physical violence includes shaking or hitting or slapping the child on the hand or leg as a method of discipline.

2) Severe physical violence includes hitting the child on the bottom or elsewhere on the body with something like a belt, hair-brush, stick or other hard object or hitting the child in the face, head or ears, or beating the child with an implement.

Table 36: Comprehensive knowledge of HIV/AIDS transmission, women 15-24 years old, MICS 2005.

	All women 15-24		Of those women who have heard of AIDS:			
	Heard about AIDS	(N)	Know 2 ways to prevent HIV transmission	Identify 3 misconceptions about HIV transmission	Has a comprehensive knowledge (identify 2 prevention methods and 3 misconceptions)	(N)
Region	***		***	***	***	
Dushanbe	46.5	320	46.7	29.4	[18.8]	149
Khatlon	17.4	1550	61.7	21.9	13.6	270
Sogd	46.8	1362	21.5	10.2	5.0	637
RRS	20.4	1075	32.1	18.8	[9.2]	220
GBAO	57.5	119	32.0	41.2	[17.5]	68
Residence	***		***	**	**	
Urban	43.9	1130	43.2	21.1	13.0	496
Rural	25.7	3296	29.6	15.6	7.6	848
Age group	***		**			
15-19	23.5	2445	30.9	16.6	9.5	574
20-24	38.9	1981	37.3	18.4	9.7	770
Education	***		***	***	***	
Primary or less	[6.9]	298	[31.9]	[13.8]	[13.8]	20
Incomplete Secondary	23.1	2170	27.3	10.5	[4.8]	501
Complete Secondary	37.9	1759	36.8	18.8	9.9	667
Higher education	79.3	197	48.8	36.0	23.0	156
Wealth Index	***		**	***	**	
Poorest	25.9	814	27.3	[10.1]	[3.8]	210
Second	21.3	882	26.2	[9.1]	[5.0]	188
Middle	24.8	945	32.6	17.4	[8.3]	235
Fourth	35.3	974	35.7	19.2	10.5	343
Richest	45.3	811	43.3	24.9	15.3	368
Ethnicity	***		*		**	
Tajik	29.9	3282	34.4	17.8	9.8	982
Uzbek	28.7	1024	32.1	11.7	[6.0]	294
Russian	[94.8]	20	[48.5]	[41.4]	[17.9]	19
Kyrgyz	[8.9]	15	[13.3]	[13.3]	[13.3]	2
Other	62.8	76	[49.3]	[41.0]	[22.9]	47
Total	30.4	4426	34.6	17.6	9.6	1344

Table 37: Discrimination and HIV amongst those women 15-24 years old who have heard about AIDS, MICS 2005.

	Percentage of women who agree on at least ONE discriminatory statement	Percentage of women who do NOT agree with any discriminatory statement	Number of women
Region	*	**	
Dushanbe	91.8	[8.1]	149
Khatlon	97.8	[2.0]	270
Sogd	94.6	5.4	637
RRS	92.9	[7.1]	220
GBAO	92.9	[7.1]	68
Residence	**	**	
Urban	92.2	7.8	496
Rural	95.9	4.0	848
Age group			
15-19	93.3	6.7	574
20-24	95.5	4.5	770
Education			
Primary or less	95.3	4.7	20
Incomplete Secondary	94.5	5.5	501
Complete Secondary	95.3	4.7	667
Higher education	91.9	[8.0]	156
Wealth Index	*	**	
Poorest	97.6	[2.3]	210
Second	99.3	[0.6]	188
Middle	94.0	[6.0]	235
Fourth	94.6	[5.3]	343
Richest	90.7	9.3	368
Ethnicity			
Tajik	94.3	5.7	982
Uzbek	95.9	[4.1]	294
Russian	[98.1]	[1.9]	19
Kyrgyz	[1]	0	2
Other	91.9	[8.0]	47
Total	94.6	5.4	1344

Table 38: Logistic regression for the probability of (1) not being deprived in any dimensions, (2) being deprived in at least two dimensions and (3) being materially deprive and without access to clean water, Tajikistan 2003.

	Not deprived in any dimension, OR	Deprived in at least two dimensions, OR	Materially deprived and without access to clean water, OR
Age	1.420	0.531	1.904
	(3.59)***	(7.44)***	(7.13)***
Age square	0.987	1.027	0.973
	(3.12)***	(7.22)***	(6.97)***
Place of Residence			
Rural	0.527	3.947	7.655
	(3.65)***	(6.84)***	(6.32)***
Urban	1	1	1
Gender			
Female	0.847	1.225	1.047
	(2.61)***	(4.02)***	(0.80)
Male	1	1	1
Mother's education			
Primary or less	1	1	1
Secondary	1.024	0.768	0.929
	(0.08)	(1.16)	(0.30)
Higher	2.679	0.366	0.569
	(2.71)***	(2.80)***	(1.40)
Mother not in the household	1.391	0.603	0.869
	(0.88)	(1.73)*	(0.46)
Father's education			
Primary or less			
Secondary	4.605	0.985	1.065
	(3.02)***	(0.06)	(0.22)
Higher	8.681	0.495	0.544
	(4.07)***	(2.37)**	(1.79)*
Father not in the household	5.232	0.825	0.760
	(3.41)***	(0.73)	(0.93)
Father's working status			
Father not working	0.968	0.991	0.924
	(0.17)	(0.06)	(0.47)
Father working	1	1	1
Observations	6657	6657	6657

Source: TLSS 2003.

Absolute value of t statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

APPENDIX: EXTRACTS FROM 'THE VOICES OF THE CHILDREN'

1 PHYSIOLOGICAL EFFECT OF POVERTY.

Subgroup of population who suffer most:

'I think that little children suffer more. They want to have nice toys, but their parents have no money for this. They are too small to control their feelings and desires. It is not possible to live without money'. Money is everything. Abdurasul, 12 yrs Kugan-Tube.

I think that orphans suffer the most from poverty. Everybody can abuse or insult them, and nobody will defend them. Hochamgol, 13 Roghun

Our neighbour lives together with her grandfather and grandmother. Her parents died and three children orphaned. The older daughter, who is 15, sells bread at the market and feeds her two brothers, grandmother and grandfather. I think, a poor family is a family without parents. Zamila, 11 village Chiptura, Shakhri Nav.

If there is no father in the family this family is considered to be poor since it has no one to work and support children. If there is no father and the mother is uneducated this can also be a reason for poverty because it is difficult for a women to find a job and earn daily bread for her children. Muhriddin, 3 grade, 10 years old, Sabo Village , Shahrinav.

Children aware of parents suffering

'Adults suffer most because they have no money to provide their children with textbooks, school bags, notebooks, clothes and shoes. They have to sell something from home to buy food, clothes' Sunatullo, grade 4 , 11. Khamadoni

My father has been working in Russia for two years now. He has a kidney disease and cannot send money to our family. My mother suffer a lot. She often has to borrow sugar, tea and vegetable oil in the store. If she has to borrow more often she sends us to the store. She says she is embarrassed. Saudat, 7 years, Roghun

'It is adults who suffer most because they think of how to feed and educate their kids. Many have to borrow money and sell their property so that their children go to school and grow healthy' Shahnoza, grade 2, 8

Children think that poor people are ashamed of themself

'Some are begging. We all know about them and they are ashamed of their situation. Therefore, they go to the city or other villages. Farzona, 14 khamadoni

'I recently came across my former classmate in a market of Istravshan district. He was drawing a hardcart and wearing an old jacket. I felt sorry for him. I pretended that I did not see him and watched him for a long time from aside. It became obvious at first glance that he had matured considerably. He looked worried and exhausted. I wanted so much to help him. Back at school he had been very bright and well-thought of by teachers'. Umed 16 Khujand city

Children think that migration has an effect on poverty/morally

We would like that all the industrial plants, which functioned in the past, should operate in full capacity, and we would like our parent work at those plants; we would like them to work here, in our district, not somewhere in the foreign country. The life is short, and we had live apart from our parents we miss them very often. Shuhrat, Kanibadam, Gunbazi 16.

Children think that poor people suffer

'Many children from poor families see how rich children are dressed and suffer because of it; they also want to be dressed like that. Sometimes children suffer so much they get sick of it.' Dilbar, grade 9. 16

Children perceived the economic situation unstable, uncertain

There are not very many industrial enterprises in Shahristan. That is why the life of people is very difficult. Many people have to live their homes to go outside to find job and earn money. Local food production has greatly dropped. Food products are imported now. Their price is very high because it transportation is very expensive. Very few people can afford buying imported food at such price. Umed, 9 16 years Shahristan.

Food prices grew considerably over the last few years. Consequently, life has become harder. In the past there were not enough teachers and textbooks. We almost do not have such problems any more although it is very difficult for poor families to buy textbooks. Bahodur, Kolkhozobad, 16 years old.

Children think that poor people do not have opportunities/feel of corruption.

Sometimes the knowledge of pupils from the poor families is even better than the knowledge of children from the rich families. But poor people cannot be sure that their child would be taken to the university, because they have no more to buy for the university quota which might be free but in fact it is sold to the rich people for the bribe. Thus the children from rich families became university students while the children from the poor families have no chance to get to university Mavchuda, 8 grade, 15 Shahristan

Children from poor families have to growth up faster

'Children from families where one or both parents are missing, have to make their living themselves. Very often small children became breadwinners for big families.' Makhina, 16 Roghun.

Very often me and my dad load stones in the car for construction. We are paid 25-30 somini for that. I hammer up boxes getting 6-8 somoni. Abuali, 9 years old, Village Chiptura, Shakhri Nav.

2 RIGHT TO PERSONAL DEVELOPMENT/ EDUCATION/LABOUR.

Children think that children from poor families miss education to work

There are many children from poor families in our school. The market is located close to the school. Many schoolchildren go to school in the morning and afterwards go to work at the market. Some of them often have to drop out of school because it is hard to study and work at the same time. They come home completely exhausted and drop asleep as soon as they have had their supper. It is ashamed that they do not see and feel their childhood, adolescent, youth. Having no family of their own they consider themselves family men. Some children drop out of school because of low living standards. To go to school one must have proper clothes, shoes, school supplies and must be able to provide something for school needs Rahima, 13, Dushambe.

When child suffers from hunger, when he has nothing to put on he looses interest to study. He constantly thinks about possibilities to earn something, to find some food and clothes. Subkhon, 4 grade, 10 years.

Children miss out education because lack of school material

'Mostly it is children from poor families that skip classes. Their families cannot afford to buy textbooks for their children, they do not have schoolbags and have to carry their notebooks, pens, ect.. in plastic bags. It is so cold in classrooms that you cannot hold a pen in your hand . Focus Group, 6-11 years old Kurgan-Tube.

Children do not have the required school material

'Last year I did not have half of the required textbooks: I had to borrow them from my friend living nearby. I had to finish my homework as fast as possible and give the textbook back to the owner although I wanted to study the subject deeper. There are some students in our class whose parents cannot even buy notebooks for them. Not all of the schoolchildren have even the basic drawing-books and colour pencils. Most of schoolchildren in primary school have even their notebooks with pens. Our parents consider such classes as graphic arts, labour nurturing and singing to be a secondary importance.' Mizhgona, 14 years old, Shahrinav.

Children think that poor children need to help parent economically

'My brother is 16 years old. Upon completion of the 9th grade he dropped out of school because our mother needed help to support the family. He washed cars at the main highways. He gets 1-3 somonis for one car.' Mahmud, 11 years old. Chiptura village, Shahrinav.

School drop out

'I do not go to school now because my parents cannot afford to buy note-books, textbooks and other school supplies for me. I had to drop out of school and help my mother to earn money. Ours is a family of 7, 3 adults and 4 children. But my mother is the only one in the family who ha s job. I try and help her but the money we earn is not enough to buy everything we need. Nadya, 15, does not go to school, Khujand.

Heating is school is not adequate

'My joint ache. It is cold in classes in winter. Most of the time in winter I stay home. Doud, 11 years old, Roghun.

Combining work and school has repercussion on learning

'Many of us do not have textbooks; some of my classmate cannot even af-ford to buy a regular notebook. Children from poor families are working af-ter classes to support their family. During classes, while sitting behind their desks they keep thinking how to earn something to feed their families. After the classes they usually run home, leave their textbooks and notebooks there, change and go out again. They return home tired at night and go to sleep straight away. They almost never do their homework. Focus group, 6-11 years old, Roghun

Education corruption

'Children from rich families can afford to go to prestigious gymnasiums, lyceums, for example to the Turkish Lyceum. This is why the level of their knowledge is much higher than that of children from poor families. Today, if you have money you can get all sorts of things. Even a diploma of higher education'. Gulmurod, 16 years old, Kurgan-Tube.

'Children from rich families often rely on their parents' money and do not study properly because they know that money can always help them.' Jum-aboy, grade 12, Dushanbe.

Children think that rich children have opportunity to get better quality of education.

Children from rich families go to prestigious schools, they have all neces-sary school supplies and good clothes. Their parents hire tutors for them

in different subjects. At hoe, they have all the necessary conditions (lighting, heating, good food) to prepare for their lessons. Some of them have servants in their houses. Consequently, the quality of education of children from rich families is better. Besides, a child from a poor family does not have textbooks, notebooks and schoolbags. He often suffers from hunger and in, wintertime, from cold lack of warm clothes. His parents cannot always pay for school. There are frequent electricity outages in the area where le lives. All these drawbacks hamper the quality of his education. As a result children start to work themselves to get everything they need for school. And gradually they drop out of school for good. Daler, 9th grade, 16 years old. Khujand.

If we do not study, we may be cheated and not given what we earned. To avoid it, we need to go to university and gain knowledge, become good specialists and get well-paid jobs. However, we are rural boys; we have no opportunity to study in university since we cannot afford it. Djamshed, grade 5, 11 years.

'Even if you are wise as Solomon, you cannot continue studying if you have no money. Ismatullo, grade 7, 13 years old, Dushanbe.

Children think higher education is necessary to overcome poverty

To reduce poverty in the country, it is necessary to study and get a specialty. Poor families understand the need for education, therefore thy borrow money and send their children to schools. Behrooz, grade 7, 13 years old.

Children think that higher education is good so they better prepared when they go to Russia

'For a person not to become poor she should study. This person should know English and Russian and have computer skills. Then, even if he goes to Russia to earn money, he will not be cheated and made to work without pay under hard conditions. Abduholik, grade 4 10, Dushanbe.

Children do not feel they get the support from the parent to have higher education

Parents from poor families without the university degree try to convince their children that the university education does not bring anything good. It is better for them to graze the cattle. They say that it is only waste of time and money to study at the university. They do not understand that if the child gets proper education he would bring a lot of use to the family and the other relatives. He will avoid poverty. Raihona 9 16 yrs Shahristan.

Many of our parents have higher. Now, all young people go to Russia for earnings. When are they going to study? They won't be future without real professional and specialists. Rasoul, 15 Roghun

Children do not belief in higher education but prefer skilled training.

My parents have higher education, but their monthly salaries do not last even a week. Should they have higher salaries, we will live much better. Ramazon, 10 village Chiptura, Shakhri Nav.

CHILD LABOR- ENVIRONMENT

Cotton- working condition

It is difficult to pick up cotton. Hands are cold and get rough. In the morning it is very cold even if the person is warmly dressed. Shahlo, 10 Kolhozabad.

Long hours

'We seldom play there is not enough time. Once we get back home from school and do all housework there is not time left. In cotton season we pick cotton till late at night. However every boys like to play'. Radjabali, 12 Khamadoni.

Gender work

'Girls gather cotton only in the field and for their work they receive money. Boys do the heavy work as they are healthy and they are more exposed to the fraud and violence'. Zarin, grade 4, 11, Kolkozabad.

'The homesteads where there are no boys, the girls have to do the boys' job: in summer they cut hey, in autumn they pick up fruits and potato, collect wood, in winter they make the hey food for the cattle, clean the cow shed, in spring they dig the land. The girls from the poor families have very bad school results. Hasan, grade 16 years old, Shahristan.

Gender-cotton

In general cotton is pick up by girls. Boys more often are involved in collecting wood, looking after cattle. Oisha, 9 years, Kolkozabad.

Picking up cotton associated with being poor

We do not pick up cotton because we are rich. Abubakr, 6 Kolhozabad.

Long working hour- all work

'I work so hard during the day that coming back home I am so ceased that I cannot do my homework- sleep hangs on my eyelids. Jumamakhmad, 13, Rogun.

All work – family support

'Two years ago I was not so good in counting money and could not cope with collecting money in minibuses-taxies, so sometimes I came home with empty pockets. Last summer I worked with my uncle collecting money in his bus and every day I brought some money home. My mother saved up the money and bought school uniform and shoes for me and my brothers. This was a good support for the family. Umarboy, Khujand, 10.

'Little children also suffer. They study at school and work to earn money to help the parents. They work for rich people, cut wood, graze their cattle, nurse their babies. My father works in Russia but he does not remit money. My brother is in the 4 grade. He works at the market, bringing home oil, soap, sugar'. Farzona, 8 years old, Kolhozabad.

'In poor families and in the families with small income all members of the family children and grown ups participate in the work around the house. In rich families they employ poor people as servants to do all kinds of work' Yusuf, 15 years old, Kurgan-Tube

Work- violence/abuse

'Boys are more exposed to the fraud on the part of clients because just they do the difficult work on markets, roads, in the house of rich people. For example, most of all loaders and those who wash machines, sell food products, fruits and vegetables become victims of violence. Akram, 5 grade, Kurgan-Tube.

'All summer I was selling ice cream but I was not paid, he said I will pay you when you do extra job in my house, but it was six o'clock but I did not go. I was afraid. Faranghis, 8 grade, 14 years old. Shrakhin. Nav.

Children –breadwinner

'Besides that, children of our age work as conductors in microbuses. Mu classmate works as a conductor; he hasn't showed up at school since September. His parents even do not ask him to go to school since he is the main breadwinner in his family, and he brings 5 Somoni every day. His sister, who should study in the 11 grade at school, sells home-made patties at the market. Parviz, Shakhrin Nav.

'Last week I saw a teenager. He was detained by a militiaman who was trying to take him to militia station. He was begging the militiaman to set him free. He was shouting: "take the two somonis that I earned but let me go. I have to work and feed my yonger brothers and sisters" Umeda, city of Kurgan-Tube

Children are cheated in the payment for their work

'Another boy for his work as the cashier in the en-route taxi instead of the promised 9 somoni was only paid 3 somoni' Garibsho, grade 4, 11 years old, Kolkozabad.

Children believe that working in land is was to escape poverty

'We all can work on land from childhood. If we had land, I believe no one would have suffered from poverty'. Mehr, 14 Khamadoni.

'It is nice that we have land plots. Although they are not big, they feed us, we eat what we plant and grow. We live only by means of our land. Some members of our families sell agricultural products at the market, which bring us some income; they also sell livestock and diary products. Many of our fathers work in Russia'. Parviz, shkhri nav, 14 years old

Children are forced to work by parents

'I know a boy who has to tend sheep even in cold weather. His father takes them all out in the morning and this boy cannot return home before the evening. Besides, he has no warm clothes.' Sharifbek, grade 3, 9 years old, Dushanbe.

I know a boy whose mother compelled him to work at the market. He helps to carry bags and sells plastic bags.' Orif, 10 years old, Village Chiptura, Shakhri Nav.

Children from poor families feel that cannot rely on their parents for support

'Children from rich families rely on their parents and therefore do not think of working, Umarali, 9 , Dushanbe.

RIGHT TO SHELTER

Children think that poverty is having no shelter/bad shelter

'A poor person has no doors and window in his house; his window is covered with plastic; rooms need plaster and paint. Children from poor families are not adequately dressed and need warm clothes and shoes'. Shahnoza, grade 2, 8 years old, Khamadoni.

Poverty is when there is no wheat i9n the house, there is little food, then parents do not work anywhere, there are no plates and dishes, no good clothing, sometimes there is no house. Even when ther is house, its walls are dirty and there are no carpets and mattress. Shakhnoza, 10 yaesr old, 4 grade. Shakhriston

'The walls of a poor man' house are plastered, but not bleached, whereas rich people have huge nicely looking houses with white walls' Orif, 1 grade student, village Sabo, Shkhrinav.

Children live in temporary accommodation

'Our family lives in the school building. There was four families in our house-hold. It was too tight and we have no other land plot, therefore father had to move away. Ther is no money to buy a house. Gulrakat, 14 Khamadoni.

Some children have temporary accommodation as results of civil war

'Our family returned from Afghanistan where we were refugees during many years. We have no house of our own. We live with the grand mother who has a big family. Other refugees live in the school buildings or kinder gardens. Faruh, 12 years old , Kolkozobod.

Some children do not have shelter due to parents drinking habits

'There are many other reasons, for example if the father sold an apartment and drank all the money. So his family has nothing to go. Or some people were kicked out of their apartment, as they could not pay for it and for other things. Yura, 10 years, khujand.

Children think that money earn through labour migration are as a priority used for repairing housing

'After earning money, when the fathers come home, they first buy titles for the roofs, glass for window, repair the ceiling, i.e. they repair house. Also they buy clothing for the kids. In such time the family eats well. Dilfouza, 19 years old. Shakhriston

Some children do not have shelter as a result of factory close done or change of system (privatization)

Our family worked at the textile factory in the past. We lived well in the family hostel in the factory. Several years ago my parents lost their job. Hat is why our family lost the right to live in the hostel. Every time when they want us to move out, my mother has an heart attach. Many people face the same problem. We study at the same school with their children. I know about it. Radjababmoh, 7 years old, Kurghan-Tube.

Poor Electricity connect associated with being poor

In the soviet days, electricity was free and now people pay a lot of money for it. Farrukh, grade 3, 10 years old, Khamadoni

'In winter we heat only one room. Wealthy people have steady heating in their houses.' Ramazon, 10 years old, village Chaptura, Shakhri Nav.

I know kids who sleep in ovens to get warm a little. Usually these kids do not have father or a mother. They live in the street begging or stealing. Kamariddin, grade 2, 9 Dushanbe.

In the past we had no money to pay for electricity . It was often cut off. Now mother pays and we have electricity. Gulandom, 9 years old, Kolkozabad.

Electricity – quality of education

'often they have no electricity at home. All this impacts quality of their education. As a result children start work in order to earn money for school supplies, and step by step they drop schools forever. Daler, grade 9, 16 Khujand.

SANITATION

Children associate poverty to poor sanitation

'When you can meet a person who is dressed in dirty worn out clothes in the street and has worn footwear, these are signs of poverty. A poor man cannot even buy a soap to wash his/her clothes. Rustam, 8 years, Kanibadam.

Poor sanitation associated with health

'Since poor people use basically water of bad quality, most of them suffer from thyroid gland'. FG, Kanibadam 12-16.

'Children from the poor families eat dirty fruits, dig in the garbage, seldom wash themselves. They have no normal conditions for life. They catch typhoid, hepatitis measles, diahhera. Madina, 13 years old, Kurgan-Tube

'if the poor families have the cow it does not mean that they drink milk. They sell the milk to buy sugar or soap. Shoira, 8 grade, 15 years old, Shahristan.

NUTRITION

Food is rationed in poor families

'There are families where they eat only two times a day. In these families the bread is divided into accounted out slices to each member of the family his norm. Parents tell their children not to eat too much'. Manhsharif, grade 8 , 13 years Kurgan-Tube.

Poor nutrition effect on health

'Regrettably, poor women cannot eat well. That is why children from poor family get sick very often. They lack of vitamins. They have ulcer in the stomach, typhoid, TBC, malaria. They do not go to the doctors. Thus the illness became chronic'. Barno, 16 Kolhozobod.

'Shomia from our class suffer from anaemia. Once she fainted at school. She has giddiness and low blood pressure. Nourishing food include meat and eggs'. FG, Kolkozabad, 11-16 years old.

'Of course, children from poor families get sick more often because it is related to their nutrition and the availability of clothes and footwear. Besides, a poor family tries to save on food to buy something else'. Parviz, grade 4, 10.

Poor nutrition- no meat

'In lower-income families soup is usually cooked without meat; it is made of pumpkins and turnips. Khursanoi', 1 grade, 7 years old, Village Sabo, Shakhrinav

We cook meat only on holidays or when we have guests. That is why we are happy when there holidays and guest are coming. Safarhon, 7 years old, Kurgan Tube.

Diet is not varied

'Poverty is when there is only bread and tea at home'. Mahmadsaid, 6 Dushanbe.

Poor nutrition and development

'Of course, if the child does not have decent food he cannot properly think; he does not have a school bag, textbooks, and notebooks; he might skip classes. Moukhriddin, 3 grade, 10, Village sabo, Shakhrinav.

RIGHT TO GOOD HEALTH

Poverty- health

Poverty affects human health. Especially it affects children's health. Children from lower-income families get ill more frequently than those wealthy families. The reason for that, in the first turn, is that they eat unvaried food; thy live in bad conditions; the are badly dressed. They frequently suffer from such ailments as typhoid, angina, diseases of joints, anaemia, ect..'. FG , age 6-11, Roghun.

Medical treatment expensive

'I have been sick with typhoid for the last three years. The doctor said that I need further medical treatment. But medicines are expensive. Ramazon, 10, Chipture, Shakhri Nav.

'I have a damage of a membrane in my right ear; it is aching all the time. That is a complication from flu. When I was ill my family did not have money for proper treatment.' Abuali, 9 years old, village Chiptura, Shakhri Nav.

A seven- year old boy of our neighbour was ill. His parents were on earning in Russia. Parents left the children with the grandmother. The child had stones in his kidneys. The grandmother could not find money and he died. Gulmira, 9 grade, 15 years old, Kanibadam.

Poor family opt for traditional treatment for healing because it cheaper

When a child from a poor family is ill his mother tries to heal him with empirical remedies since the family does not have money for treatment. In case of illness, children from wealthy families are immediately brought to qualified doctors; sometimes they carry them to Dushanbe, and then flow all recommendations of doctors. Dilovar, 9 years old, Roghun.

Poorly dressed – health

'Children frequently fall ill because are not quite warmly dressed, their foot-wear is ragged and rubber. They cannot buy expensive footwear and often fall ill with flu. Mavluda, grade 3 , 9 years old. Kolkozabad.

'A child from poor family falls ill very often because he goes out into the street without a hat. He gets colds and has head ache(pneumonia). If the family has no money to buy medicine they used to sell something from their home'. Ibodad, grade 8 , 14 Khujand.

'Children from lower-income families come to school in thin clothes and torn shoes, which is the reason for their illness and non-attendance of classes'. Zarif, 3 grade, 11 years old, village Sabo, Shakhrinav.

Family to get medical treatment need to sell assets

'To be able to get professional help and treat their children in a in-patient facilities a poor family has to sell their property or livestock because other-wise the child will not be admitted into the hospital'. Abdurahmon, 3 grade, 9 years old, Hamadoni.

Health affect by hard labour

'There are many young people here who left for Russia to earn money and came back completely sick. They have problems with kidneys, stomach, legs and ones. All this was caused by hard labour and poor nutrition' Sha-rofat 15, Khamadoni.

Lack of resources cause chronic disease

'Once the cold weather comes the children of our class immediately catch cold or flu. They cough all the winter. Since they do not have medicines the illness last all the winter. Mahpari, 12 years old. Roghun.

MATERIAL POVERTY

Money

'During breaks at school children from poor families do not go to the can-teen since they have no money.' Farida, 7 years old, Roghun.

There is a family in our village in which the father can earn only bread that is why they do not buy medical drugs to treat the elder child. He is staying

sick for a long time at home lying on the floor because they have no car-pet or mat. The roof is covered with mud and hey. Madina, 15 years old, 8 grade, Kolkozabad.

I would like to have additional English classes too, but our family is not able to pay for these classes, that is why my mother used to say that I should do my best and than I will not need private and additional classes. If we get additional money we will eatmore.' Nargiz, 11 years old Khujand.

Lack of school supplies

'There are children in our form that have not had schools bags since the 1st grade. They come to school with plastic bags. Some of them are not ashamed of this, other hesitate and hide their bags under the clothes.' (Na-siba, Khujand, 11 years old)

'Poor people differ from rich. Poor people buy cheap goods and food. Chil-dren from poor families wear slippers or galoshes. They carry their text-books and notebooks in plastic bag because they have no school bags. They go to school in the same clothes they wear at home. Their parents cannot afford school uniform.' Radjabali, grade 6, 12 years old, Khamadoni

'Since my parents did not have possibilities to pay for school articles I did not attend school for two years.' Azizjohn, 6 grade, 14 years old, Shakhrinav.

'Sometimes, in order to do homework, children from poor families had to borrow textbooks from their classmates. Of course the classmate can lend the book once in a while, but it cannot last all the time. Being ashamed of such a situation children quit attending school.' Jamshed, 7 grade, 12 years old, Shakhrinav.

Lack of proper footwear and clothes

A poor person can be recognized in the first turn by his clothes and shoes; usually, poor people are thin and small. Lower-income families deny them-selves very necessary; they cannot afford good food and good clothes; they do not change their dress until it is completely worn out.' Yagone, 10 grade, 10 years old, Roghun.

Children are those who suffer the most from poverty, because they want to have as good clothes as those of children from wealthy families. Some children do not attend school since they do not have textbooks, clothes and shoes. Parents of such children cannot pay for their study; they cannot buy everything needed for school. Jasouurbek, 3 grade, 10 years old, village Sabo, Shakhrinav.

Lack of land

'Our life is getting harder, before we lived in a village and we have land

where we planted many products and father salary we spend for other stuff. Now we live in city and the father salary is little more than he had before but it is not enough for our family. Now we became poor. *Farruch, 12 years old, Kurgan-Tube*

Household amenities

'Poor children study at the ordinary school. Rich people try to bring their children to schools and colleges, hire teachers for extra studies. Their houses are high. They have satellite TV and others technical facilities. The poor man does not have a TV set at all. Two years ago our family went to watch TV at the kneeboards. After our father brought money from Russia we bought the TV of our own but it is not very good'. *Mirzo, Kolhozobod, 13 years old.*

'I think that little children suffer more. They want to have nice toys, but their parents have no money for this. They are too small to control their feelings and desires. It is not possible to live without money. Money is everything'. *Abdurasul, 12 years old, kurgan-Tube.*

Lack of food

'Poverty is when there is no wheat in the house, there is very little food, then parents do not work anywhere, there are no plates and dishes, no good clothing, sometimes there is no house. Even when there is a house, its walls are dirty and there are no carpets and mattresses. Poverty is when a person is often hungry'. *Shakhnoza 10 years old 4 grade. Shakhriston.*

'We receive humanitarian aid, wheat flour, oil, peas, beans. This help us a lot'. *Ismat, 13 Khamadoni.*

Lack time for games

'When we tended cows, we got too involved in the game and did not notice that one of the cows fell in a drainage channel. We could not save it and could not even slaughter it therefore its meat was not good for consumption. Father punished me severely and beat me. Therefore we try not to play to avoid losses. We have no time for games. *Djabbor, grade 3rd 9 years old, Khamadoni.*

ABUSE

Peers

'I would like to tell the story of one family heard from my parents. 10 years ago the mother died of hard illness leaving six children with the father. The elder was 12-13 years old. As it is usual in the villages the relatives recommended the man to get married because it is difficult to look after children along. The family was poor. The salary of the father was not enough. The

step mother told the father to send the children to work: "Let them work and help the family. They are big enough". The father agreed and sent the elder son to work. The boy stop going to the 8 form at school and later on left for Russia. However, he did not find job because he did not know Russian and he was departed back. He became a constructive worker. But he lost hid health and got tuberculoses. He has no money for treatment. Everybody says that he will dye soon. That is why children he lost their parents become poor because nobody cares about them' Umed 14 years old 7 grade, Kolhozabad.

Rich

'There are rich children in our school. During the break they send poor children to buy food for them. If the poor children refuse they beat them or insult. Many children wash the cars but they are not paid by the owners. The boys who carry heavy loads suffer from hernia. Faruh, Kolhozobod, 12 years old.

Orphans subject of abuse

'I think that orphans suffer the most from poverty. Everybody can abuse or chide them, and nobody will defend them. Hochamgoul, 13 years old.

By employer

'The whole group of elder schoolchildren was brought to Russia to the city of Volgograd to work in the agricultural sector and pick up water melons. They worked hard but as a result no money has been paid to them yet'Umed 9 grade 16 years old, Shahristan.

REGIONAL DIFFERENCES

Family land as safety net

'My father was selling tomatoes. He saved money, bought a calf, tended it, then sold and got a lot of money. Today we again have calves at home. We live thanks to this money'. Radjabali, grade 4, 10 Khamadoni.

'My father drives cars to different places, and thus we survive. Life in the city is difficult. We have to buy everything here, even herbs. From time to time our relatives who live in the village help us sending some food in the season of harvest. It is difficult to have cattle in the city. There is no land for cattle and it is expensive to buy forage'. Burkhon, Khujand, 8 years old.

'Our life became heavy. We lived in the village and grew a lot of vegetables and fruits, while the father had job. Now we live in the city. Father earns little money. We became poor'. Faruh, 12 years , Kurgan-Tube.

Free time

'Some children after coming from school throw their bags and run to a computer-bar. Mothers do not object them. Some parents even give their children money for teachers for getting a good mark'. Shuhrat, 3rd, 9 years old, Kurgan-Tube.

'We seldom play, there is mot enough time. Once we get back home from school and do all housework there is not time left. In cotton season we pick cotton till late at night. However every boy likes to play'. Radjabali, 12 Khamadoni.

Clothes

'Our fathers suffer most of all, as they main burden is on their shoulders. As men, they think it is their main duty to feed family. The role of man in the family is dominating in the village. In the towns both men and women are breadwinners, but in the village only men. Children also suffer from poverty, but the fact is that in the village almost all children are dressed in the same way, but in towns it is not the case. Children are not concerned to look fashionable in the village. In town the children are more picky. We are not ashamed of our clothes'. FG, Shahristan, 6-11 years old.

'A poor person is ashamed to leave the house because of his shabby clothes, there are people who laugh at his poverty and neglect him for that. Poor people sit in the street begging. Children from poor families cannot and do not want to go to school because they are ashamed of their torn clothes. Their parents do not visit parents' meeting because they cannot pay.

Differences in the type of job

'There are many children from poor families in our school. The market is located close to the school. Many schoolchildren go to school in the morning and afterwards go to work at the market. Some of them often have to drop out of school because it is hard to study and work at the same time. They come home completely exhausted and drop asleep as soon as they have had their supper. It is a shame that they do not see and feel their childhood, adolescence and youth. Having no family of their own they consider themselves family men. Some children drop out of school because of low living standards. To go to school one must have proper clothes, shoes, school supplies and must be able to provide something for school needs' Rahima, 13 years old, Dushanbe.

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