CHILDREN IN TRANSITION: CHILD POVERTY IN THE KYRGYZ REPUBLIC

JANE FALKINGHAM, SHAMSIA IBRAGIMOVA

ABSTRACT

This paper examines trends in the prevalence and severity of child poverty in the Kyrgyz Republic since the mid 1990s. Poverty is a multi-dimensional phenomenon and trends in both monetary poverty, as measured by household expenditure, and capability poverty, as measured by education, health status and access to related social services, are discussed. Recent evidence on child food security is also presented. Using newly available panel data from the 1998-2001 Household Budget Survey, the paper also investigates the dynamics of childhood poverty, investigating the duration of material poverty and factors associated with movements in and out of poverty.

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Child Poverty in the Kyrgyz Republic

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This paper examines trends in the prevalence and severity of child poverty in the Kyrgyz Republic since the mid 1990s. Poverty is a multi-dimensional phenomenon and trends in both monetary poverty, as measured by household expenditure, and capability poverty, as measured by education, health status and access to related social services, are discussed. Recent evidence on child food security is also presented. Using newly available panel data from the 1998-2001 Household Budget Survey, the paper also investigates the dynamics of childhood poverty, investigating the duration of material poverty and factors associated with movements in and out of poverty.

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1. Introduction

This paper is a contribution to a wider cross-country study examining childhood poverty in a number of countries of Asia being carried out by Childhood Poverty Research and Policy Centre CHIP[1]. The purpose of this study is to add to the knowledge of the different dimensions affecting children's well-being, with the aim of providing better information for policy-makers in constructing poverty alleviation programmes. There is a growing recognition that focusing on current measures of material poverty provide a limited, static, picture of a household's well being. For designing poverty reduction strategies, it is important not only to alleviate poverty but also to prevent households from falling into poverty. Given this, it is essential to identify which households are at risk of becoming poor as well as those that are currently poor. This paper uses data from one of the few longitudinal data sources within the region to examine the dynamics of childhood poverty as well as recently available data on child food security.

This paper examines childhood poverty in one of the poorer Republics of the Former Soviet Union (FSU), the Kyrgyz Republic. The Kyrgyz Republic, as with other Republics in the FSU, in the early 1990s embraced a programme of reforms that moved the country towards a market economy, as well as gaining independence from a Union which had previously supported relatively high levels of social investment. The loss of transfers from the Union coupled with the upheaval of reform had a negative impact on the population during the early 1990s. During the past two years, there have been a number of publications that have traced recent trends in poverty and well-being for the population in general (see for example, UNDP 2002, World Bank 2003 and Falkingham 2004a). However the issue of *child poverty* has received relatively little attention, despite evidence that children, who constitute 37 percent of the total population, are the group most at risk of poverty (Yarkova et al 2003). This paper aims to fill that gap in literature, analysing the trends in, and attributes associated with, childhood poverty in the Kyrgyz Republic over the period 1996-2003, using a range of household survey data.

Section 2 provides an overview of the economic and social structure of Kyrgyz Republic, furnishing the context within which to understand and interpret the results. What is interesting about the Kyrgyz Republic is that it is a highly agricultural economy with relatively high investments in human, social and physical capital compared to countries with similar levels of GDP. Section 3 introduces the data. Section 4 presents the results, mapping how the prevalence of material poverty has changed over time and investigating the factors associated with this change. The dynamics of child poverty are explored in Section 5. Other dimensions of children's

[1] The Childhood Poverty Research and Policy Centre is a collaborative venture between Save the Children and the Chronic Poverty Research Centre (CPRC) with partners in China, India, Kyrgyzstan, Mongolia and the UK. See http://www.childhoodpoverty.org/

well-being are also examined, specifically food security (Section 6), education and health (Section 7). The implications for policy and conclusions are discussed in Section 8.

2. An Overview of the Kyrgyz Republic

The Kyrgyz Republic is one of the smallest and least developed of the newly created independent states of the Former Soviet Union. With a GDP per capita of $1,620 PPP[2] in 2002, Kyrgyzstan is the second poorest country in Central Asia, ranked 110th out of 177 countries on the UNDP Human Development Index (UNDP, 2004). In the late 1990s, just under nine in ten people (88 percent) were thought to be living on less than $4 PPP a day.

Over a third of the GDP is derived from the agricultural sector, with the country having a limited number of natural resources, including gold, minerals and hydro-electric power. The country is physically divided into two by the Tien Shah mountains, as well as being divided into two federations, the more "Russified", secular industrial North and the Ick Kilik in the predominately agricultural, more Islamic south and Eastern Pamiers. There are also numerous tribes and klans within these division, reflecting the local heterogeniety of the population, as well as different ethnic groups from outside the country that had migrated or fell within the official border (largely effecting ethnic Uzbeks). Subsequently the country is ethnically diverse, with around two-thirds Kyrgyz, one-sixth Russian, and a further sixth Uzbek.

Table 1 Selected macroeconomic indicators, Kyrgyz Republic 1992-2003

	1992	1996	1997	1998	1999	2000	2001	2002	2003
Population (m)	4.5	4.6	4.6	4.7	4.7	4.7	4.8	4.8	4.8
Economic indicators									
Real GDP Growth (%)	-19	7.1	9.9	2.1	3.7	5.4	5.3	-0.5	5.2
% Industry/GDP	32	10	17	16	21	23	23	19	
% Agriculture/GDP	37	42	41	36	34	34	354	37	
Industry (gross output)	26	3.9	40	5	-4	6	5	-13	
Agriculture (gross output)	-5	15	12	3	8	3	7	3	
General Government Expenditure (% of GDP)	34	33	33	36	37	29	26	28	
Unemployment Rate (% of Labour Force)	0.1	15.8	15.6	16.7	15.5	16.7	17.4		
Consumer price inflation (end-year)	1259	34	15	18	40	10	4	2	3
Exchange Rate[1] (end of year)	511.0	16.7	17.4	29.4	45.8	48.4	47.7	46.2	
Social indicators									
Expenditures on health (% of GDP)	3.4	3.1	3.2	2.6	2.1	1.9	2.3		
Expenditures on education (% of GDP)	5.0	4.8	4.9	4.9	4.0	3.5	4.0		
Life expectancy at birth (years)	69.3	66.5	66.9	67.1	67.0	68.5	68.8	68.1	
Earnings inequality (Gini coefficient)	30.0	42.8	43.1	42.9	46.6	47.0	51.2		

[1]Roubles per $ until 1992: Som per $ thereafter
Source: EBRD (2000, 2002, 2004)

[2] PPP – purchasing power parity, where GDP has been adjusted to take into account differences in the costs of living between countries.

There is a vast literature on the affects of the collapse of the FSU which we do not attempt to summarise here, rather we limit ourselves to an overview of the most important factors relevant to this study. Following independence, the Kyrgyz government implemented a programme of reform consisting of five strands; liberalization of prices and quantity of goods on all markets, macroeconomic stabilization by constraining Central Bank lending to the government and the banking system, privatisation of the State owned enterprises, the general opening of the economy to foreign trade and the creation of a social safety net. Accompanying economic reform, the Kyrgyz Republic suffered major de-industrialization in the early 1990s, with falls in industrial output reaching as high as 70 percent over the first five years following independence and positive rates of growth emerging only in late 1995.

Despite the official non-existence of unemployment in Soviet Union, prior to the collapse of FSU the Kyrgyz Republic, in common with other Central Asian Republics (CARs), experienced a surplus of labour with relatively high rates of youth unemployment. With the reforms, unemployment rose sharply to 16 percent of the labour force by 1996. Unemployment remained around this level throughout the late 1990s, despite positive rates of economic growth and in 2001 just over 17 percent of the labour force were out of work and actively seeking a job.

Amongst the FSU, the CARs were relatively underdeveloped and had higher incidences of poverty, with income levels being comparable to some developing countries. However the Soviet central planning legacy in Central Asia resulted in relatively high social investments, with education and health outcomes similar to those in industrial countries (UNDP 1997). The Soviet system also ensured a minimum level of well-being through the provision of extensive welfare services. Enterprises were not just places of employment but provided many of the social sector facilities and benefits. The low-income levels combined with high levels of human, social, and in urban areas physical capital too, makes the CARs distinctly different from many developing countries. In 1992 literacy rates were over 90 percent and life expectancy at birth was 69.3 years.

The break-up of the Soviet Union saw the ending of substantial transfers from Moscow, which contributed to the reduction in GDP. Investments in education and health were greatly reduced and many of the facilities attached to enterprises were closed. Medical services and schooling that were formerly provided free at the point of delivery became subject to fees and unofficial charges. The impact of the reduced provision, or inability to afford these services has had a significant material and psychological impact on households (Moser and Holland 1997).

Furthermore, inflation and liberalization of previously subsidized goods and services resulted in a decline in the real value of wages that had been sufficient for a minimum standard of living given the costs of living under the soviet system. Erosion of the purchasing power of wages has meant that even having a job is often not sufficient to avoid poverty. Furthermore wages and benefits were often not paid on time, and arrears in payments over prolonged periods of time were common (Falkingham 1999). The low monetarisation of a highly rural economy combined with low wages and the eradication of savings has meant that households were often

unable to cope with shocks to household income. The impact of ill health on a working member of the family often results in not only a drop in income to the household through the loss of wage income, but also the large cost of the medical treatment that is needed. Bearing these factors in mind, this paper therefore takes a multi-dimensional view of well-being. The indicators discussed will include both economic measures of poverty based on incomes and expenditures and selected capability-based indicators - reflecting the health and education of individuals. In addition the paper will also assess the nutritional intake of children.

3. Data issues and definitions of child poverty

The measures of child poverty presented in this paper are based on a number of different data sources. Changes in the sample design, data collection method and definition of the welfare indicator and poverty line mean that comparisons over time need to be treated with some caution.

3.1 Data sources

Between 1996 and 1998 the National Statistical Committee of the Kyrgyz Republic (NatStatCom) carried out three surveys based on the World Bank Living Standards Survey model. These are known as the Kyrgyz Multi-purpose Poverty Surveys (KMPS). The KMPS collected detailed information concerning households' income and expenditures along with other socio-economic data. The sample was based on a nationally representative stratified random sample. Funding for the LSMS ceased in 1998. In 1999, NatStatCom conducted the Household Energy Survey (HES) with a similar sample design to the KMPS and thus this can be used to provide comparable estimates of welfare in that year (but see below).

Throughout the 1990s NatStatCom continued to field the Household Budget Survey (HBS). The sample was based upon the households that constituted the Kyrgyz portion of the old USSR HBS and as such the sample was not nationally representative (see Falkingham 1999, for a fuller discussion on this). In 2000, approximately 1,000 additional households were added to the HBS in order to make the sample more representative at the oblast level. Analysis showed that the new households enjoyed, on average, a lower per capita consumption than the original sample households. Although weighted have been computed, these largely account for demographic characteristics and do not fully account for the fact that the added households were poorer on average than the original sample (World Bank, 2003). Thus estimates using the complete HBS for 2000 show a worsening of overall headcount poverty between 1999 and 2000, which may be attributable in part to the change in the sample.

In order to control for changes in the sample characteristics due to expansion, two sets of poverty estimates from the HBS are presented: one using the full HBS sample and the second confined to the original panel members only. This is in line with the analysis carried out by the World Bank in the most recent poverty assessment update (World Bank 2003). Cross-sectional estimates for 1998-2001 using the confined sample are based on the 1,108 households in the World Bank/NatStatCom panel dataset, whilst cross-sectional estimates for 2002 are based on 1,038 surviving panel households[3]. Longitudinal analysis of the dynamics of poverty over the period 1998-2001 is based on the World Bank/NatStatCom panel dataset.

A new survey was introduced in 2003, the Kyrgyz Integrated Household Survey (KIHS). This new Survey aims to replace the HBS. Unfortunately electronic data from the 2003 round were not available at the time of writing (October 2004).

[3] All analysis uses weighted data.

3. 2 Differences in data collection and aggregation

The aggregation of expenditures items and frequency of data collection varies substantially between the KMPS, the HES and the HBS (and the new KIHS differs again!).

The HBS includes a monthly diary for each month over the entire year, whilst the 1996-1998 KMPS and 1999 HES collected information on expenditures based on recall, using two reference periods of two weeks each for frequent purchases and an annual recall period for other purchases. These recall expenditures are then converted to annual expenditures. Given that the Kyrgyz Republic is a largely agrarian society and that there are seasonal fluctuations in expenditures and economic activity, it is likely that estimates of welfare will be affected by the frequency of data collection, particularly those using just two 2-week reference periods.

The estimation of expenditures from the KMPS and HES are further affected by being limited to those in pre-defined categories. The KMPS collected information on approximately 90 food items, whereas the HES included a more limited list of just 50 items. Evidence has shown that reported expenditure increases with a more detailed disaggregation of consumption items. Thus it is likely that the HES in particular will underestimate expenditures.

3.3 Welfare measures

Two different welfare measures are used in the official estimation of poverty within the Kyrgyz Republic – total household expenditure and total household consumption. The key different between them is that the **expenditure** aggregate includes actual expenditures on all items, including gifts, the full purchase price of household durables, real estate and livestock as well as taxes and fees. In contrast, the **consumption** aggregate excludes expenditures on real estate, livestock and gifts given away by the household as these are not consumed by the household. However, it includes the value of gifts received. Consumption also includes the estimated 'use' value for consumer durables, reflecting the fact that utility from such goods is spread over a number of years.

There are also two approaches for adjusting welfare for differences in household size and composition. The simplest approach is to use a **per capita measure** i.e. dividing the welfare aggregate by household size. This approach assumes no economies of scale within the household and that the needs of individual members are the same, regardless of age, gender and other attributes.

The second approach uses an equivalence scale. The equivalence scale currently in use in Kyrgyzstan is that derived by Barry Popkin and his team at University of North Carolina using data from the first KMPS in 1993. The equivalent scale is:

Men aged 18-59 years	1.00
Women aged 18-54 years	0.80
Pensioners (60+ men and 55+ for women)	0.78
Children 14-17 years	0.89
Children 7-13 years	0.78

Children 4-6 years	0.64
Children 0-3 years	0.49

The three welfare measures currently in use by the Kyrgyz Government are:

- Per capita expenditure
- Per capital consumption
- Consumption per adult equivalent

3.4 The Poverty line

The absolute poverty line used with the Kyrgyz Republic has recently been recalculated with assistance from the World Bank. The earlier poverty line was based on data from the 1996 KMPS and updated annually using CPI. The new poverty line follows the same methodology but reflects the consumption patterns from the 2001 HBS.

The poverty line is calculated using the basic needs approach. First a food basket providing a minimal daily calorific intake of 2100 calories per person per day is estimated using the consumption habits of the second to fourth deciles of the population. In 2001 the annual cost of this basket was 4,648 som. This 'food poverty line' is used as the threshold for identifying extreme poverty. Second, the cost of non-food items is estimated by using the share of food expenditures in total expenditure for households with a per-capita food consumption in the region of the 'food poverty line'. In 2001, this food share was 66.6%. Thus the overall absolute poverty line in 2001 was 6,975 com per person per year. The updated 1996 based poverty line was estimated to be 7,491 soms per capita in 2001. The difference between the old and new lines reflects changes in the patterns of consumption over time and differential price changes.

NatStatCom publish an annual poverty report. That report includes three different measures of poverty:

- Per capita expenditure, with 1996-based poverty line updated using CPI
- Per capita consumption, with 2001-based poverty line updated using CPI
- Consumption per adult equivalent, with 2001-based poverty line updated using CPI.

In this report we base our main analysis on per capita consumption. Analysis based on the LSMS for the period 1996-1998 uses the 1996-based poverty line uprated using CPI, whereas analysis based on the full HBS sample for the period 1998-2002 uses the 2001-based poverty line adjusted using CPI. Additional analysis based on the HBS panel follows the approach in the recent World Bank poverty assessment and uses per capita consumption and the 2001-based poverty line. The impact of the expansion of the HBS sample on headcount poverty rates is clearly visible in the estimates of headcount poverty in Table 2a and 2b below, with estimates using the HBS panel being considerably lower than those found the full HBS survey.

4. Childhood poverty in the Kyrgyz Republic

4.1 Trends in Child Poverty since the mid 1990s

Despite difficulties in compiling estimates of child poverty on a consistent basis over time, several statements can be made with some degree of certainty.

- First, child poverty increased during the period 1996 to 1998, reaching a peak in the period immediately following the Russian financial crisis in the Summer of 1998.
- Second, there has been a steady decline in the proportion of children aged under 18 living in poverty between 1998 and 2001.
- Third, there was little or no improvement in child poverty between 2001 and 2002, coinciding with the fact that the country experienced negative economic growth during 2002.
- Fourth, the incidence of poverty amongst children aged under 18 is significantly higher than amongst the population in general; and poverty rates are higher amongst children aged 7 than amongst children aged 7 and over.

Table 2a Proportion of children living in poverty[1] 1996-2002[2]

Age group	**LSMS**			**HBS Full sample**				
	1996	**1997**	**1998**	**1998**	**1999**	**2000**	**2001**	**2002**
a) % in poverty (headcount rate, P0)								
0-3	57.5	59.2	74.4	84.9	77.7	73.8	70.7	65.7
4-6	58.5	58.2	71.4	82.1	76.7	74.9	69.3	65.6
7-13	56.3	59.0	71.3	77.4	73.1	70.7	65.2	64.9
14-17	56.3	55.0	65.4	73.9	66.0	66.1	57.4	62.5
All children 0-17	**56.9**	**58.1**	**70.6**	**78.4**	**72.8**	**70.7**	**64.6**	**64.5**
All ages (total pop)	**51.7**	**51.0**	**63.6**	**69.5**	**64.2**	**63.0**	**56.4**	**54.8**
b) Depth of poverty (poverty gap, P1)								
0-3	0.228	0.209	0.314	0.344	0.291	0.275	0.236	0.206
4-6	0.237	0.214	0.284	0.337	0.275	0.263	0.213	0.193
7-13	0.229	0.213	0.272	0.294	0.253	0.249	0.208	0.202
14-17	0.211	0.201	0.238	0.266	0.217	0.225	0.177	0.200
All children 0-17	**0.226**	**0.210**	**0.275**	**0.302**	**0.254**	**0.249**	**0.205**	**0.201**
All ages (total pop)	**0.202**	**0.182**	**0.246**	**0.256**	**0.216**	**0.214**	**0.172**	**0.166**
c) Severity of poverty (P2)								
0-3	0.118	0.099	0.164	167	0.135	0.126	0.102	0.088
4-6	0.123	0.104	0.143	167	0.122	0.118	0.087	0.078
7-13	0.122	0.100	0.134	139	0.112	0.112	0.088	0.086
14-17	0.108	0.097	0.116	121	0.090	0.100	0.073	0.085
All children 0-17	**0.119**	**0.100**	**0.137**	**143**	**0.112**	**0.112**	**0.086**	**0.085**
All ages (total pop)	**0.103**	**0.086**	**0.123**	**119**	**0.093**	**0.094**	**0.070**	**0.068**

Notes: [1] living in poverty defined according to household poverty status i.e. table shows the proportion of children living in poor households. [2] There have been several changes in methodology that have affected comparisons of trends over time (see Annex 1 for more details). The figures here are based upon per capita expenditure and the 1996 poverty line, uprated using the CPI.

According to estimates from the LSMS child poverty rose from 57 percent in 1996 to over 70 percent in 1998 (Table 2a). As noted above, changes in sampling and survey instruments mean that data from the LSMS and HBS are not directly comparable. The LSMS were all conducted between October and November in the respective years. The Russian financial crisis occurred in August 1998 and its effects, in terms of decreased trade flows and reduced remittances, began to be felt throughout the FSU within a few weeks. Thus the data for the 1998 LSMS will, in part, reflect changes due to the Russian crisis. However as the recall data for some items of expenditure are based on an annual time period, the full effects of the crisis would not be expected to have fully fed through until the following year. In contrast, the HBS data are based on monthly returns. Thus the impact of the Russian fiscal crisis will be fully reflected in the returns for August-December. According to the estimates from the HBS, in 1998 nearly four out of every five children under 18 were living in poverty; and 35% were living in extreme poverty (defined in relation to the minimum food basket). By 2002, the situation had improved somewhat but just under two-thirds of children (64.5%) remain living in poor households and 29% were in extreme poverty.

As noted above, comparisons of poverty over time in the Kyrgyz Republic are seriously complicated by the expansion of the HBS sample by an additional one thousand households in 2000. The 'new' households enjoyed an average level of per capita consumption around 70 percent of the consumption level of the original sample households. Given that the additional sample households were on average poorer than the original sample members, it is perhaps surprising that comparisons using the full HBS sample show a fall in child poverty between 1999 and 2000, and certainly underestimate improvements over time. The HBS sample has a panel structure tracking the same households over time unless they drop out, when an appropriate household replacement is found. As part of the technical work for the recent World Bank poverty assessment, a cleaned panel data was created in order to obtain consistent estimates of poverty over time. Thus a set of alternative estimates of child poverty based on the World Bank HBS panel data are presented in Table 2b.

Several caveats need to be noted. First, even with weights the HBS panel is not representative of the whole population; indeed the rationale for the addition of extra households in 2000 was to make the sample more representative of regions that are much poorer than average. Thus the poverty levels in the panel sample are likely to be lower than the true poverty levels for the population as a whole. Second, households which drop out of the panel sample are more likely to be those with higher incomes and expenditures, with the result that the World Bank panel sample which is restricted to households who have remained in the panel for the full period is biased toward poorer households or towards households more likely to remain poor. With these qualifications in mind, Table 2b shows that child poverty actually deteriorated slightly between 1998 and 1999, despite an improvement in overall poverty rates. Child poverty then fell to a low of 53 percent in 2001, but in 2002 headcount rates returned to the level of 2000. As Table 1 above showed, during 2002 the country as a

whole experienced negative economic growth, and children as well as adults were adversely affected.

Table 2b Proportion of children living in poverty[1] 1996-2002[2]

Age group	HBS panel households only				
	1998	**1999**	**2000**	**2001**	**2002**
a) % in poverty (headcount rate, P0)					
0-3	63.2	68.0	55.1	58.2	56.9
4-6	63.9	65.0	58.8	52.7	57.4
7-13	62.5	65.1	61.6	54.7	57.1
14-17	52.4	54.1	48.9	46.8	58.9
All children 0-17	**61.1**	**63.7**	**57.2**	**53.3**	**57.5**
All ages (total pop)	**55.3**	**54.8**	**48.2**	**42.6**	**48.7**
b) Depth of poverty (poverty gap, P1)					
0-3	0.194	0.218	0.155	0.152	0.187
4-6	0.213	0.203	0.166	0.133	0.159
7-13	0.195	0.197	0.174	0.146	0.171
14-17	0.149	0.162	0.134	0.115	0.180
All children 0-17	**0.190**	**0.196**	**0.160**	**0.138**	**0.173**
All ages (total pop)	**0.157**	**0.166**	**0.132**	**0.113**	**0.141**
c) Severity of poverty (P2)					
0-3	0.078	0.090	0.060	0.054	0.079
4-6	0.091	0.083	0.065	0.047	0.061
7-13	0.080	0.079	0.067	0.056	0.070
14-17	0.057	0.064	0.050	0.041	0.077
All children 0-17	**0.077**	**0.079**	**0.062**	**0.051**	**0.073**
All ages (total pop)	**0.063**	**0.066**	**0.050**	**0.040**	**0.058**

Notes: [1] living in poverty defined according to household poverty status i.e. table shows the proportion of children living in poor households. [2] The figures here are based upon per capita consumption and the 2001 poverty line. Estimates for 1998-2001 are based on 1,108 households in the World Bank panel dataset. Estimates for 2002 are based on 1,038 surviving panel households.

4. 2 The spatial dimension of child poverty

There are clear spatial differences in the risk of Kyrgyz children of living in poverty, with headcount poverty rates being higher in rural than urban areas (Table 3). There is also a clear regional ranking, with children living in Naryn oblast having the highest risk of being poor, whilst children living in the capital city of Bishkek and the neighbouring oblast of Chui have the lowest risk. Interestingly, it seems that children living in urban areas have been hardest hit by the recent slowdown in economic growth, with urban child poverty rates worsening between 2001 and 2002 whilst those in rural areas continued to improve. Children in Bishkek suffered the greatest proportionate rise, with poverty rates increasing by a fifth from 38 percent in 2001 to 45 percent in 2002. In contrast, the proportion of children living in poverty in Naryn

actually fell during the same period; there was also a marked improvement in child poverty in Issyk-kul and Osh oblasts.

Table 3 Proportion of children aged 0-17 living in poverty 1996-2002 by region

Region	LSMS			HBS Full sample				
	1996	**1997**	**1998**	**1998**	**1999**	**2000**	**2001**	**2002**
Urban	40.7	35.7	59.7	67.8	61.4	63.0	55.3	57.4
Rural	62.8	69.1	76.1	82.8	77.3	73.8	68.4	67.3
Bishkek	27.7	6.2	36.2	56.5	50.2	47.4	37.8	45.4
Issyk-kul	67.0	67.5	75.2	73.0	70.2	75.6	71.3	62.2
Jalal-Abad	57.4	75.2	74.5	90.3	85.9	78.8	71.9	70.8
Naryn	77.9	91.4	92.5	96.8	97.2	90.9	92.2	89.6
Batken	n\a	n\a	n\a			77.4	60.0	67.4
Talas	61.2	70.9	84.2	82.3	76.2	75.5	71.9	69.4
Osh	66.9	69.4	84.0	87.8	76.0	88.2	77.0	72.0
Chui	46.1	31.3	44.5	60.1	51.6	44.5	40.7	42.1
All children 0-17	56.9	58.1	70.6	78.4	72.8	70.7	64.6	64.5

4.3 The correlates of child poverty - who are the poor children?

A summary of the profile of child poverty in 2002 is given in Table 4 below.

Table 4: the Profile of Child Poverty in the Kyrgyz Republic in 2002

Of every 100 children aged 0-17 in the Kyrgyz Republic:	***Of every 100 <u>poor</u> children aged 0-17 in the Kyrgyz Republic:***
• 71 lived in rural areas • 11 lived in the capital city Bishkek • 6 resided in Naryn • 80 lived in households with access to land • 1.2 lived in households where the head of household had no or just primary education • 59 lived in households with 3 or more children • 23 had access to running water • 23 had access to an indoor toilet • 15 had access to private bath/shower • 19 had access to a telephone	• 74 lived in rural areas • 8 lived in the capital city Bishkek • 8 resided in Naryn • 84 lived in households with access to land • 1.3 lived in households where the head of household had no or just primary education • 70 lived in households with 3 or more children • 17 had access to running water • 17 had access to an indoor toilet • 10 had access to private bath/shower • 12 had access to a telephone

Three-quarters of poor children live in rural areas, whilst less than a tenth live in Bishkek. The majority (70 percent) live in households with 3 or more children. As most Kyrgyz children are poor, the position of poor children is not strikingly different to that for children as a whole – although poor children are less likely to live in households with access to running water and an indoor toilet than children as a whole.

Tables 5-8 show how the relative risks of being poor amongst children aged under 18 have changed over time according to a number of different characteristics. By looking at changes in relative risks rather than absolute levels of child poverty, problems of comparability of data from different sources over time are minimised.

Children living in households with more than three children have a much higher risk of being poor compared to those children living in households with two or less. Moreover, it appears that the relative risk of poverty associated with high numbers of siblings has widened over time as overall rates of child poverty has fallen; the implication being that children living in households with smaller numbers of children were more likely to move out of poverty than those with more children (Table 5). Interestingly there is little difference in the relative risk of poverty between children according to the number of adults in the household, despite the fact that more adults potentially means more earners (Table 6). Moreover, what differences there are have narrowed over time, implying that child poverty rates have improved disproportionately amongst single parent households.

Table 5: Relative risk of child poverty according to the number of children in the household, 1996-2002

No of children in household	LSMS			HBS – full sample				
	1996	1997	1998	1998	1999	2000	2001	2002
One	0.65	0.54	0.57	0.69	0.68	0.70	0.62	0.62
Two	0.90	0.83	0.91	0.98	0.97	0.98	0.98	0.95
Three	1.20	1.15	1.16	1.14	1.18	1.15	1.20	1.39
Four	1.30	1.43	1.24	1.32	1.35	1.32	1.40	1.44
Five or more	1.29	1.66	1.49	1.28	1.27	1.24	1.46	1.42
All children 0-17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 6: Relative risk of child poverty according to household type, 1996-2002

Household type	LSMS			HBS – full sample				
	1996	1997	1998	1998	1999	2000	2001	2002
Single parent	1.00	0.58	0.82	0.57	0.78	0.75	0.73	0.77
Two adults (+ kids)	0.97	0.93	0.88	1.05	1.03	1.00	1.05	1.00
Three or more adults (+ kids)	1.04	1.12	1.12	1.08	1.01	1.04	1.00	1.05
All children 0-17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

There is a strong relationship between the risk of child poverty and the educational level of the head of household, with children living with heads who have no education, primary or incomplete secondary schooling being most at risk (Table 7). The differentials by educational status of the head have remained comparatively stable over time, although the relative advantage of living with a head with higher education increased between 2001 and 2002. It may be that households with better educated heads were more able to protect themselves during periods of economic downturn. Surprisingly, there is no consistent or marked relationship between the risk of child poverty and the economic activity status of the household head (Table 8).

Table 7: Relative risk of child poverty according to highest educational qualification of head of household, 1996-2002

Education of household head	LSMS based			HBS – full sample				
	1996	1997	1998	1998	1999	2000	2001	2002
Without education	1.05	1.23	1.31	1.25	1.23	1.08	1.25	1.22
Primary or less	1.02	1.20	1.14	0.88	1.09	1.16	1.35	1.13
Incomplete Secondary	1.15	1.19	1.18	1.19	1.12	1.14	1.18	1.17
Secondary	n\a	n\a	n\a	0.93	1.04	1.00	0.89	0.95
Vocational/technical	0.96	0.84	0.84	0.96	0.94	0.92	0.90	0.93
University or above	0.57	0.61	0.56	0.75	0.76	0.77	0.68	0.64
All children 0-17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 8: Relative risk of child poverty according to economic activity status of head of household, 1996-2002

Economic status of household head	LSMS based			HBS – full sample				
	1996	1997	1998	1998	1999	2000	2001	2002
Employed	0.94	0.96	0.92	1.06	0.99	0.97	0.96	1.00
Unemployed	1.11	0.84	0.92	1.13	0.93	1.09	1.13	0.92
Out of the labour force: retired	1.06	1.20	1.24	0.85	1.04	1.14	1.18	1.03
Out of the labour force: other	1.10	0.95	1.07	0.60	1.53	n/a	n/a	n/a
All children 0-17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

5. Dynamics of Child Poverty

5.1 Transitions in and out of child poverty

A key advantage of the Kyrgyz HBS is that data are collected from the *same* households over a number of different years. This *panel* element allows the analysis the dynamics of household welfare, looking at which households move in and out of poverty over time. Unfortunately electronic files of the HBS are not available for years earlier than 1998. However as discussed above a panel dataset containing 1,108 households who were observed every month during the 1998-2001 period has been constructed with assistance from experts at the World Bank. This panel dataset is used here to examine the dynamics of child poverty.

Table 9 shows that during the period 1998-2001 there was considerable economic mobility in Kyrgyzstan, with the majority of individuals experiencing a change in their relative economic welfare over time[4]. Only 42 percent of people were in the same quintile in 2001 as they were in 1998, 29 percent experienced a fall in their relative position and a further 29 percent an improvement. However amongst those in the bottom (or poorest quintile) over half (54%) were still there in 2001 and only 7 percent had made it to the top two quintiles.

Table 9 Changes in the relative welfare of the population, 1998 to 2001

% of Total

		quintile 2001					
		1	2	3	4	5	Total
quintile 1998	1	10.9%	5.5%	2.3%	.9%	.4%	20.0%
	2	4.7%	5.2%	5.4%	3.6%	1.1%	20.0%
	3	2.1%	6.0%	6.4%	4.1%	1.4%	19.9%
	4	1.6%	2.5%	4.8%	7.0%	4.2%	20.0%
	5	.8%	.7%	1.2%	4.4%	12.9%	20.0%
Total		20.1%	19.9%	20.0%	19.9%	20.0%	100.0%

As demonstrated above, children are more likely to live in the poorest households than the population in general. Thus in 2001, around a quarter of children aged 0-17 were in the poorest fifth of the overall population. Children are as likely to live in 'economically mobile' households as the population as a whole, but where their households do move, they tend to move up or down by just one quintile. For example, of those children living in the poorest quintile in 1998, only two percent had made it to the top two quintiles by 2001.

[4] Relative economic welfare is measured by the distribution of per capita household consumption in the population. It was calculated using the individual weights in the HBA panel dataset. The bottom quintile represents the poorest twenty percent of individuals whilst the top quintile represents the richest twenty percent of individuals in that year.

Table 10 Changes in the relative welfare of children aged 0-17, 1998 to 2001

% of Total

		quintile 2001					
		1	2	3	4	5	Total
quintile 1998	1	14.6%	6.9%	2.6%	.6%	.6%	25.3%
	2	5.8%	6.1%	6.2%	3.7%	1.1%	22.8%
	3	2.1%	6.8%	6.5%	4.0%	1.4%	20.8%
	4	1.7%	2.7%	4.8%	5.9%	3.2%	18.3%
	5	.6%	.6%	1.2%	2.5%	7.9%	12.8%
Total		24.7%	23.1%	21.3%	16.7%	14.2%	100.0%

The level of mobility in per capita consumption highlights that a purely cross-sectional analysis of poverty will fail capture the significant amount of movement in and out of poverty that is taking place in Kyrgyzstan. Using the panel data set is it possible to track children's experience of poverty over time[5]. Between 1998 and 1999 overall child headcount poverty within the panel rose from 61 percent to 64 percent. However, this summary statement masks significant changes. Ten percent of children fell into poverty and 7 percent were lifted out of poverty, resulting in a net rise of 3 percent. Similarly, although child headcount poverty fell from 64 percent to 57 percent between 1999 and 2000, 6 percent of children became poor over the year, whilst 13 percent moved out of poverty.

Table 11 Transitions in and out of child poverty, all children aged 0-17 in 2001

	Not poor	Poor	Total
1998		**1999**	
Not poor	27	**10**	39
Poor	**7**	54	61
Total	36	64	100
1999		**2000**	
Not poor	30	**6**	36
Poor	**13**	41	64
Total	43	47	100
2000		**2001**	
Not poor	34	**8**	43
Poor	**13**	45	57
Total	47	53	100

With significant movement both in and out of poverty, it is useful to discriminate between children who are temporarily poor for just one year and those who are persistently or *chronically* poor. Over the four year period, just 23% of children were *never* poor, 11% were poor in one year, 13% poor in 2 years, 17% poor in 3 years and 37% were poor in all 4 years. This latter group may be thought of as suffering chronic poverty.

As Table 12 shows, the likelihood of being chronically poor is significantly higher for children than for the population in general. Nearly two in every five children aged 4 to13 years old in 2001 were chronically poor. Moreover, over a third

[5] Poverty is defined using per capita consumption and a poverty line of 6785 soms. Per capita consumption was adjusted to 2001 prices using the CPI. Price differences across regions by rural and urban location were also taken into account using the regional Laspeyres index.

of all children born in the four year period (i.e. aged 0-3 in 2001) had lived their entire lives in poverty and only a quarter had never experienced poverty.

Table 12 Chronic and Transient Child Poverty by age, 1998-2001

Years living in poor household	Age in 2001				All children 0-17	Total pop
	0-3	4-6	7-13	14-17		
Never Poor	25	20	19	30	23	32
1 year	14	10	11	10	11	11
2 years	11	15	12	13	13	13
3 years	15	18	18	16	17	15
4 years	35	38	41	32	37	30
Total	100%	100%	100%	100%	100%	100%

Not surprisingly given the spatial dimensions of static child poverty discussed above, there are significant regional differences. The likelihood of experiencing chronic poverty is higher in rural than urban areas. A staggering 87 percent of children aged under 17 in 2001 living in Naryn had lived in poverty for the entire four year period compared to just 13 percent of children in Bishkek and 12 percent in Chui oblast.

Table 13 Chronic and Transient Child Poverty by region, 1998-2001

All children 0-17	Years living in poor household					
	None	1 year	2 years	3 years	4 years	Total
Urban	33	11	13	12	31	100%
Rural	18	11	12	18	40	100%
Bishkek	49	18	14	6	13	100%
Issyk-kul	31	10	6	25	28	100%
Jalal-Abad	9	11	16	22	42	100%
Naryn	1	3	6	3	87	100%
Talas	19	10	14	10	47	100%
Osh	19	10	13	21	36	100%
Chui	46	15	14	14	12	
All children 0-17	23	11	13	17	37	100%

5.2 The correlates of chronic child poverty

So far the analysis has concentrated on simple bi-variate analysis of the association between the risk of child poverty and various characteristics. However many of these characteristics may be associated with each other. For example the education of the household head may be thought to play a role in determining the head's labour market status. Similarly, there are well known associations between the level of education and fertility, which in turn determines the number of children in the hoiusehold. Table 14 therefore presents a multivariate analysis of the correlates of chronic child poverty, with the dependent variable being the likelihood of a child aged under 18 in 2001 being in poverty for the entire period 1998-2001. Variables were entered stepwise into the logistic regression model according to their level of significance. Region was the most important explanatory factor; children in Naryn were a shocking *thirty-five times* more likely to be chronically poor than children in Bishkek, holding everything else constant. Elsewhere regional differentials were not

so stark. Nevertheless, children in Talas and Jalal-Abad three times more likely, and children in Osh and Issyk-kul were twice as likely, to be chronically poor than those in Bishkek.

Table 14 Correlates of chronic child poverty

Characteristics	Odds ratio	95 percent confidence interval	Unweighted (N) Total = 1,871 children aged 0-17
Region			
Bishkek (r)	1.00		(151)
Issyk-kul	1.98	1.94 - 2.03	(147)
Jalal-Abad	2.79	2.74 - 2.84	(406)
Naryn	35.10	34.32 - 35.90	(180)
Talas	2.99	2.93 - 3.05	(154)
Osh	1.79	1.76 - 1.82	(481)
Chui	0.92	0.90 - 0.94	(248)
Urban (r)	1.00		(465)
Rural	0.72	0.71 - 0.72	(1302)
Age of household head	1.005		(1871)
Sex of household head			
Male	1.00		(1418)
Female	1.18	1.17 - 1.19	(349)
Number of children in the household			
One (r)	1.00		(321)
Two	2.54	2.51 - 2.58	(478)
Three	4.09	4.03 - 4.15	(448)
Four	5.45	5.37 - 5.53	(312)
Five or more	4.18	4.11 - 4.24	(208)
Household Type			
Two adults (+ kids) (r)	1.00		(808)
Single parent	1.11	1.10 - 1.12	(123)
Three or more adults (+kids)	0.48	0.47 - 0.49	(836)
Education of household head			
Primary or less	7.75	7.56 - 7.94	(55)
Secondary	4.05	3.99 - 4.11	(917)
Incomplete secondary	3.84	3.77 - 3.91	(93)
Vocational/technical	1.91	2.88 - 1.93	(475)
University or above (r)	1.00		(227)
Economic status of household head			
Employed (r)	1.00		(1433)
Unemployed	1.10	1.09 - 1.12	(95)
Out of the labour force: retired	0.89	0.88 - 0.90	(239)

Note: the final model specification was determined using forward step-wise conditional logistic regression with the condition of variables for inclusion being significant at $p<0.05$. The order in which the variables were entered is: region, education of household head, number of children in the household, household type, urban/rural, sex of household head, economic status of household head and age of household head. All variables significant at $p<0.001$. (r) = Reference category.

Perhaps somewhat surprisingly educational status of the household head was the second variable to be entered into the stepwise conditional model. In many of the analyses of the correlates of poverty conducted in the region 'early' on in the transition period, education was found not to play a major role (see for example, Falkingham and Ackland, 1997). However as labour markets have been liberalised the returns to education have increased and it is clear from this analysis that households with better educated heads are much more likely to be able to employ strategies to move their families out of poverty. Children living in households where the head had

only primary education or less were nearly eight times more likely to be chronically poor than children living in households where the head had a higher education.

The number of children in the household and household type were also highly significant. Children living in households with three or more children were four to five times more likely to be chronically poor than those who live in households with no other children except themselves. The risk of chronic poverty was highest for children living in single parent households and lowest for those living with three or more adults. Children living in female headed households were also more at risk than those living in male headed households, and the risk of chronic poverty was positively associated with the age of the head. Interestingly there were only slight differences according to the economic status of the household head. Finally, after controlling for all other factors, the urban – rural differentials in chronic poverty found in Table 13 were reversed, with rural children being less likely to suffer chronic poverty than those living in urban areas. This is an important finding, highlighting that urban children should not be ignored in any strategy to reduce poverty. This is further reinforced by the evidence on food security and capability poverty presented in the following sections.

6. Food security and children

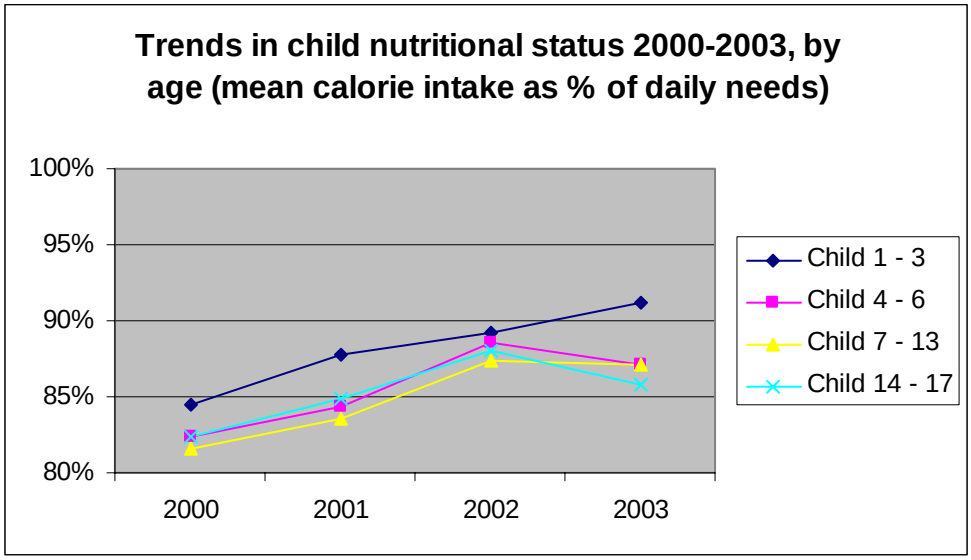
According to the 1997 Kyrgyz Demographic & Health Survey,11 percent of children under age three were moderately or severely underweight, 3 percent were moderately or severely wasted and 25 percent were moderately or severely stunted. These rates are much higher than the WHO standards and suggest that the nutritional status of children is a major cause for concern.

Unfortunately there are no recent nationally representative surveys of nutritional status. However, the Kyrgyz NatStatCom regularly collects data on children's actual food consumption over a nine month period. This can be converted into calorific values and these compared against recommended minimum values. Overall, there has been an improvement in food security over the period 2000-2003, both for children and the population as a whole. However, average levels of food consumption remain below the recommended minimum values. Moreover, there are signs that some groups of children experienced a slight decline in intake between 2002-2003.

Table 15 Food consumption (levels and % of minimum recommended level) amongst children aged 1-17 in the Kyrgyz Republic, 2000-2003

	Actual food consumption, Cal				% of minimum recommended level			
	2000	2001	2002	2003	2000	2001	2002	2003
Age group								
Child 1 - 3	1203	1251	1272	1300	84%	88%	89%	91%
Child 4 - 6	1512	1548	1626	1599	82%	84%	89%	87%
Child 7 - 13	1854	1900	1985	1981	82%	84%	87%	87%
Child 14 - 17	2059	2121	2199	2144	82%	85%	88%	86%
All children 1-17	**1731**	**1786**	**1901**	**1926**	**84%**	**87%**	**92%**	**93%**
Total population	**2048**	**2092**	**2144**	**2130**	**91%**	**93%**	**95%**	**95%**

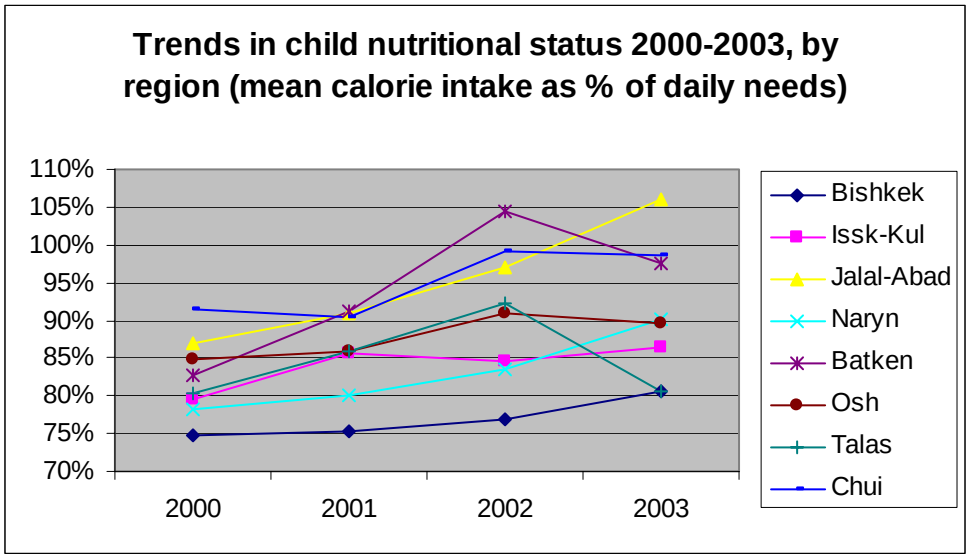
Note: Recommended daily calorific intake within the Kyrgyz Republic are: children aged 1-3 years 1,435 Kcal; 4-6 years 1,835 Kcal; 7-13 years 2,273 Kcal; 2,498 Kcal.



There are clear regional differentials with child food consumption in calorific terms being higher in oblasts with a strong agricultural sector, such as Jalal-Abad and Batken. Nutritional standards are lowest in Bishkek, which provides an interesting contrast to the spatial picture of material poverty, where poverty is consistently found to be lowest in Bishkek. It is important to bear in mind that access to material resources is not necessarily translated into good nutritional intake. Moreover in all regions, with the recent exception of Jalal-Abad, child calorie intake remains below the nutritional norm. There was a sharp drop in nutritional intake amongst children aged 0-17 in Talas and Batken between 2002 and 2003 (see Figure 2).

Table 16 Food consumption (levels and % of minimum recommended level) amongst children aged 1-17, by region, Kyrgyz Republic, 2000-2003

	Actual food consumption, Cal				% of minimum recommended level			
	2000	2001	2002	2003	2000	2001	2002	2003
Region								
Bishkek	1544	1550	1585	1660	75%	75%	77%	81%
Issk-Kul	1641	1765	1743	1782	80%	86%	85%	86%
Jalal-Abad	1795	1877	2000	2187	87%	91%	97%	106%
Naryn	1614	1649	1724	1859	78%	80%	84%	90%
Batken	1708	1879	2154	2012	83%	91%	104%	98%
Osh	1747	1769	1877	1849	85%	86%	91%	90%
Talas	1655	1773	1902	1660	80%	86%	92%	81%
Chui	1886	1865	2044	2032	91%	90%	99%	99%
All children 1-17	**1731**	**1786**	**1901**	**1926**	**84%**	**87%**	**92%**	**93%**



7. Non-income dimensions of poverty

7.1 Education

As noted in a recent report to DFID, 'education statistics are some of the most strongly contested development statistics in Kyrgyzstan' (p. 11, para 2.1.4 in Marcus, 2004). Tables 17 and 18 present the proportion of children enrolled in school from both administrative statistics and survey data. Survey estimates are consistently higher than those from administrative data, but both sources reveal high levels of enrolment for children of compulsory school age.

Table 17 Proportion of children enrolled in education, estimates from survey data

Age group	LSMS			HBS – full sample				
	1996	**1997**	**1998**	**1998**	**1999**	**2000**	**2001**	**2002**
0-3	25.0	n\a	52.7	n/a	n/a	n/a	n/a	n/a
4-6	96.3	72.4	82.6	n/a	n/a	n/a	n/a	n/a
7-13	96.7	96.8	98.5	99.4	99.4	99.5	99.7	99.8
14-17	78.4	76.0	79.2	n/a	n/a	n/a	n/a	n/a
All children 0-17	90.5	88.5	91.2	n/a	n/a	n/a	n/a	n/a

Table 18 Proportion of children enrolled in education, estimates from administrative data

	1996	***1997***	***1998***	***1999***	***2000***	***2001***
Pre-primary education enrolment (Net rates, % of population aged 3-6)	8.2	8.3	8.7	8.0	8.7	9.0
Basic education enrolment (Gross rates, % of population 6-14)	89.4	89.9	90.3	89.8	96.2	95.2
Total upper secondary education enrolment (Gross rates,% of population aged 15-18)	41.3	44.2	48.3	50.1	36	36.4
Higher education enrolment (Gross rates, % population aged 19-24)	15.3	19	24.8	29.8	34.6	37.4

Source: UNICEF Transmonee database 2003

Of course, enrolment rates tell only part of the story. A UNICEF study of school attendance in 1999 found substantially higher rates of school non-enrolment and drop-out than the official figures based on administrative records (UNICEF, 1999). The real costs of education faced by families have risen as the cost of textbooks, supplies, meals and transportation are increasingly being passed onto the student, with the result that many poor parents can no longer afford to send their children to school (Falkingham, 2000). The UNICEF study found that non-attendance was highest in areas with the greatest opportunities for paid work for children, but the report also highlighted the stigma and shame many parents felt if they could not send their children to school in decent clothing and this was exacerbated by the humiliation of children by teachers if fees or 'gifts' could not be paid on time or in full. This is confirm by analysis of survey data. When children were asked why they had discontinued with their studies, the majority (68%) reported that they had finished/graduated. However amongst those who gave other reasons, over half said

they had to leave school to earn money to live and 5 percent said it 'cost too much'. Thus clear barriers are emerging in educational access for the poorest children.

7.2 Health

Table 19 Trends in infant mortality and maternal mortality, Kyrgyz Republic 1996-2003

	1996	1997	1998	1999	2000	2001	2002	2003
Infant mortality rate (deaths per 1,000 births)	25.9	28.2	26.2	22.7	22.6	21.7	21.2	20.9
Maternal mortality rate (deaths per 100,000 births)	31.5	62.7	33.6	42.3	45.5	43.8	53.5	44.6

According to official statistics from the Ministry of Health, infant mortality has been improving, from a high of 28.2 deaths per 1,000 live births in 1997 to 20.9 in 2003; a rate similar to Romania and below that of Saudi Arabia (UNDP, 2004). However, international comparisons are complicated by the fact that Kyrgyzstan still uses the old Soviet methodology when determining what constitutes a live birth. With the introduction of the standard WHO methodology, it is expected that infant mortality may rise by a factor of three (Letarte, 2003), which would put Kyrgyzstan alongside its neighbour Mongolia and countries such as Bolivia and South Africa.

Rates of infant mortality considerably vary by region, being highest in Bishkek (27.2), Batken (25.6) and Osh (24.0) and lowest in Issyk-kul (16.8) and Chui (16.9) (UNDP, 2003). The figures for Bishkek are in marked contrast with the position regarding material poverty, but tie in with those concerning nutritional status presented above and are further supported by evidence that living conditions in the newly constructed suburbs are relatively poor. However, they may also reflect the fact that more complicated deliveries and serious childhood diseases tend to be treated in the capital where medical facilities are more advanced.

Rates of maternal mortality are also affected by the differences in defining a live birth between the Soviet and WHO methodology. In 2003, the maternal mortality rate (MMR) was officially estimated at 44.6 deaths per 100,000 live births. However estimates by UNDP put it considerably higher at 110, similar to rates experienced by women in Tajikistan and Suriname (UNDP, 2004). According to the 2003 UNDP Millenium Development goals Report, the relatively high MMR is attributable to the rise in complicated deliveries alongside a fall in the use of modern contraceptives and a rise in unsafe abortions; it is estimated at 10% of all registered cases of maternal mortality are abortion related (UNDP, 2003). Worringly, the proportion of women of reproductive age using modern contraception has fallen from 40.3% in 1999 to 33.1% in 2001, primarily because of the contraction in the supply of contraceptives by international agencies. This has implications for future trends in both infant and maternal mortality.

Data on subjective measures of morbidity and health service utilisation amongst children in the Kyrgyz Republic are available from the 2001 Kyrgyz Health Financing Survey (KHFS), conducted by NatStatcom on behalf of the Ministry of

Finance and funded by DFID (Falkingham, 2001) and the repeat survey included as a special module as part of the HBS in 2004 (Falkingham, 2004b). The percentage of children reporting acute ill health has been relatively stable over time, although there appears to be a fall in chronic ill health.

Table 20 Percentage reporting chronic and acute ill health by age and gender

	% reporting chronic illness		% reporting acute illness	
	2001	**2004**	**2001**	**2004**
Boys				
0-3	1.7	0.4	17.4	16.2
4-6	1.9	2.1	12.1	20.0
7-13	4.1	1.3	12.8	14.5
14-17	4.6	3.8	12.9	12.8
All boys 0-17	3.5	1.9	13.4	15.2
Girls				
0-3	0.6	1.1	17.4	15.4
4-6	2.1	0.9	16.9	17.5
7-13	3.8	2.2	17.4	18.2
14-17	7.0	3.2	11.3	12.0
All girls 0-17	3.8	2.1	15.8	16.0

Utilisation of health care services is also fairly stable over time, although that has been an increase in those reporting that they needed medical assistance in the past 30 days but did not seek help (Table 21). When probed on the reasons for *not* seeking help, the vast majority reported that they self-medicated using pharmaceuticals; and this had increased over time (Table 23). Reassuringly, the proportion reporting that they were deterred from using health services by cost has fallen. This suggests that the recent reforms in the finance of the health system have improved the position regarding financial barriers to health care; a point confirmed by the fall in the value of out of pocket payments (see Falkingham, 2004b).

Table 21 Utilization of health care services by age and gender

	% sought medical assistance in last 30 days		% reporting needing medical help, but did not seek	
	2001	**2004**	**2001**	**2004**
Boys				
0-3	18.3	14.8	13.4	12.3
4-6	6.6	7.5	8.0	17.5
7-13	5.1	6.6	9.7	12.7
14-17	7.2	6.3	7.1	8.6
All boys 0-17	7.9	7.9	9.3	12.4
Girls				
0-3	17.8	14.3	11.9	14.4
4-6	8.0	9.1	11.2	12.8
7-13	7.8	8.3	12.7	14.6
14-17	5.2	5.8	8.4	11.2
All girls 0-17	8.8	8.6	11.3	13.4

Interestingly, the percentage of children using medical services for vaccinations, as a share of all child health care users, has fallen over time (Table 22). In 2001, a quarter of all child consultations in 2001 were for vaccinations and parents provided the syringes in half (47%) of such cases. By 2004 vaccinations had fallen to

just 8 percent of consultation; and to just 49% and 345 of consultation s for boys and girls under age 3 respectively. This point warrants further investigation.

Table 22 Percentage using health care services for illness/injury or vaccination by age and gender

	% seeking medical assistance for injury or illness		% seeking medical assistance for vaccination services	
	2001	**2004**	**2001**	**2004**
Boys				
0-3	38	41	58	49
4-6	63	80	30	11
7-13	80	74	8	2
14-17	76	81	-	-
All boys 0-17	64	69	27	16
Girls				
0-3	46	54	52	34
4-6	81	90	19	4
7-13	83	81	3	1
14-17	80	81	-	-
All girls 0-17	70	77	21	8

Table 23 Reasons given for why respondents did not seek medical assistance by gender (%)

	2001		**2004**	
	Boys	**Girls**	**Boys**	**Girls**
Self-medicated using herbs	11	14	9	10
Self-medicated using pharmaceuticals	68	64	83	83
Believed problem would go away	11	12	2	4
Too far/poor service	1	1	1	1
Too expensive	8	7	4	2
No time	1	2	-	1
Other	2	-	-	-

8. Concluding comments

Despite recent economic growth, at the beginning of the twenty-first century nearly two-thirds of all children aged under 18 in the Kyrgyz Republic are living in poverty and four in ten are chronically poor. These figures rise to 90 percent in Naryn, where most poor children are also chronically poor and there appears little chance of them escaping material hardship during their childhood. Clearly Naryn is a special case deserving of urgent attention, but it is important to also bear in mind that whilst 8 in every 100 poor children live in Naryn, a similar number live in Bishkek. It is also important to bear in mind that higher material well-being does not necessarily translate into better nutritional status and that the average per capita calorific intake amongst children in Bishkek remains the lowest in the country. A concentration on rural poverty is understandable, given the rural nature of Kyrgyzstan but it is important to highlight that chronic poverty may actually be higher in urban areas once other factors are controlled for. The fact that poor urban households often lack access to land and the ability to produce food for home consumption means that they are more dependent on the monetary economy and poor urban children may be more vulnerable to shocks that poor rural children, highlighting the need for specific policies to address their concerns.

Although child poverty rates remain high, the good news is that there appears to be considerable mobility with around one in ten children moving in or out of poverty each year. Factors associated with a reduction in the likelihood of chronic poverty include the education of the household head indicating that programmes which enhance the educational status of children may contribute to alleviating poverty in the longer term. Chronic poverty is highest amongst children living in households with many children and those in single parent households, indicating that poverty alleviation efforts in the shorter term would benefit from targeting these groups

There is also good news in the health sector as it appears that the reforms in health financing have reduced the number of people reporting that they did not seek health care due to its cost. However overall utilisation rates have fallen despite no evidence of a change in underlying morbidity, thus any complacency here may be premature. Nor should there be complacency in the educational sector as there is evidence that high levels of enrolment mask growing inequalities in school attendance.

This brief analysis has attempted to summarise the empirical evidence on child poverty data and present new analysis on the dynamics of poverty. Further in-depth analysis is needed concerning the factors associated with moving out of poverty. It is hoped that the new KIHS over time will generate the necessary data to support evidence based policy to reduce child poverty. However we cannot wait until then and urgent action is required to tackle child poverty if Kyrgyzstan is not to lose the next generation.

References

European Bank for Reconstruction and Development (2000), *Transition Report 1999 update*. London: EBRD.

European Bank for Reconstruction and Development (2002), *Transition Report 2002*, London: EBRD.

European Bank for Reconstruction and Development (2004), *Transition Report 2003 update*, London: EBRD.

Falkingham. J. (1999) 'Measuring household welfare: problems and pitfalls with household surveys in Central Asia' *MOCT-MOST: Economic Policy in Transitional Economies.* pp.379-393. Vol. 9. No. 4.

Falkingham, J. (2000), "From Security to Uncertainty: The Impact of Economic Change on Child Welfare in Central Asia". Innocenti Working Paper, No. ESP 76. Florence: UNICEF Innocenti Research Centre.

Falkingham, J. (2001) *Health, health seeking behaviour and out of pocket expenditures in Kyrgyzstan 2001*. Final Report of the Kyrgyz Household Health Finance Survey. London: DFID.

Falkingham, J. (2004a) 'Inequality and Poverty in the CIS-7, 1989-2002' in *The Low Income countries of the CIS: Progress and Challenges in Transition*. Oxford: Oxford University Press/ The World Bank.

Falkingham J. (2004b) *What has happened to Health, health seeking behaviour and out of pocket expenditures in Kyrgyzstan 2001-2004?* Report of the 2004 Kyrgyz Household Health Finance Survey. Mimeo paper (currently under submission to the Ministry of Health and WHO Kyrgyzstan).

Falkingham, J. and Ackland. R. (1997) 'A profile of poverty in Kyrgyzstan in Autumn 1993', in J. Falkingham, J. Klugman, S. Marnie, and J. Micklewright (eds) *Household Welfare in Central Asia*. London: The Macmillan Press.

Marcus, R. (2004) 'Poverty Synthesis Study – Kyrgyzstan'. Report to DFID Central Asia and South Caucasus Desk. 1st February 2004. Mimeo Paper.

Moser, C. and J. Holland, (1997). *Household responses to poverty and vulnerability: Volume 4: Confronting crisis in Chawana, Lusaka Zambia*. Washington, DC: The World Bank.

UNDP (1997) *Human Development Under Transition 1997 - Kyrgyz Republic*, RBEC Report/UNDP.

UNDP (2002) *The Macroeconomics of Poverty: a case study of the Kyrgyz Republic*. Bishkek: UNDP. http://www.undp.kg/english/pubs6.phtml?l=0&id=63

UNDP (2003) *The Kyrgyz RepublicMmillennium Development Goals Progress Report*. UNDP: Bishkek. http://www.undp.kg/english/publications.phtml?1

UNDP (2004) *Cultural Liberty in Today's Diverse World*. Human Development Report 2004. New York: UNDP.

UNICEF (1999) *School Attendance in the Kyrgyz Republic*. Bishkek: UNICEF.

World Bank (2003) *Kyrgyz Republic: Enhancing Pro-poor Growth*. Report No. 24638-KG. Washington DC: World Bank.

Yarkova, T. Botoeva, G. Reeves, M. Konokbaev, K. Yarkova, N. Marcus. R. and Satybaldieva, E. (2003) *Childhood Poverty in Kyrgyzstan: Initial Literature Review*. London: CHIP.