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School Drop out: Patterns, Causes, Changes and Policies

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School Drop out: Patterns, Causes, Changes and Policies

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Introduction

Policies to improve school progression and reduce the numbers of children dropping out of school are critical if Universal Primary Education (UPE) is to be achieved. Children are starting primary school in greater numbers than ever before but drop out rates are significant and lead to low levels of primary school completion in many countries. In Benin, for example, the primary school completion rate in 2005 was 62 percent, although it increased steadily from 38 percent in 2000. In the Democratic Republic of Congo, the primary school completion rate in 2007 was 51 percent, which was the same completion rate for the country in the early 1990s. In Bangladesh, the primary school completion rate has remained around 60 percent since 2000¹.

As a result of substantial rates of drop out and non-completion of primary school many children are leaving schooling without acquiring the most basic skills. Their brief schooling experience consists frequently of limited learning opportunities in overcrowded classrooms with insufficient learning materials and under-qualified teachers (Alexander, 2008). Children of different ages and abilities are mixed together in single classrooms without proper adaptation of teaching methods to improve learning and to induce school engagement (Little, 2008). Such schooling circumstances, together with personal and family level factors such as ill-health, malnutrition and poverty, jeopardise meaningful access to education for many children. As a result, many children are registered in schools but fail to attend, participate but fail to learn, are enrolled for several years but fail to progress and drop out from school.

Failure to complete a basic cycle of primary school not only limits future opportunities for children but also represents a significant drain on the limited resources that countries have for the provision of primary education. According to the World Bank, the Government of Malawi for example allocated 4.2 percent of Gross Domestic Product towards public educational expenditure in 2007, which represented around 195 million dollars. Of this, 55 percent was allocated towards primary school. With a primary school drop out rate of 65 percent in 2007, it is estimated that nearly half a million school places were taken up by children who fail to complete primary school². In monetary terms, this broadly represented an annual expenditure of 60 million dollars, 1.3 percent of GDP in 2007, on the education of children who probably left schooling without any basic skills³.

Despite its importance, strategies designed to improve primary school retention and progression have received relatively little attention. Typically, national education plans assume that primary school progression will improve automatically as a result of interventions designed to improve initial access and educational quality. Nevertheless, improving progression in primary school may not necessarily be about improving the quality of education alone. For instance, data from the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) show very high variation between mathematics test scores (a crude indicator of educational quality) and survival rates to Grade 5 (mainly determined by the cumulative drop out rates). Namibia has very low average achievement in

¹ Information obtained from The World Bank, Educational Indicators, Education at a Glance.

² Information obtained from The World Bank, Educational Indicators, Education at a Glance. The basic estimate on the number of school places taken up by pupils who fail to complete is based on population estimates on children aged 6 to 12 according to the 2004 Malawi DHS times drop out rate.

³ Information obtained from The World Bank, Educational Indicators, Country at a Glance. The basic estimate on the monetary cost of investing in children who fail to achieve is based on annual GDP times proportion of GDP spend in primary schooling times drop out rate for 2007.

mathematics but a survival rate to Grade 5 around 87 percent. At the other extreme, Mozambique has relatively high average achievement in mathematics test scores but survival rate to Grade 5 is just above 40 percent.

While children dropping out without completing primary school remains a key constraint for achieving UPE, country experiences in the last 10 years have demonstrated that it is possible to change. In Tanzania, survival to Grade 7, the final year of primary education, for 10 to 19 year olds, has increased steadily from 72.8 percent in 1991, 75.2 percent in 2004, to 82.1 percent in 2007. Similarly in Ghana, survival to Grade 6, final year of primary education, increased from 79.7 percent in 1998 to 85.8 percent in 2008⁴. Although these countries have shown clear progress on average, issues around the links between social exclusion and drop out and completion rates from primary school still remain to be solved. Marginalised groups are most seriously at risk of dropping out and they often remain hidden to policy and interventions.

This background paper for the UNESCO GMR team draws on a range of resources to provide a synthesis on drop out. The paper focuses on patterns of participation, age-specific drop out rates, equity in drop out rates, and the link between over age enrolment and drop out rates. The paper outlines the main causes of drop out and provides two country case studies, Ghana and Tanzania, to highlight the potential strategies that could be used to address drop out. The paper concludes with our main policy messages.

Patterns of Participation and Drop out

Common patterns of primary school progression are important as they highlight key points where children are most at risk of dropping out from school. Although patterns of enrolment by grade differ markedly between countries, we extracted three main profiles of participation in primary school using information from Lewin (2009). The first profile contains countries with high participation rates across the primary school cycle (point A in Figure 1). Drop out rates for these countries are low and most children enrolled in primary schooling are likely to complete even lower secondary education. Examples of countries with this pattern include South Africa, Namibia, Armenia, Philippines and Botswana.

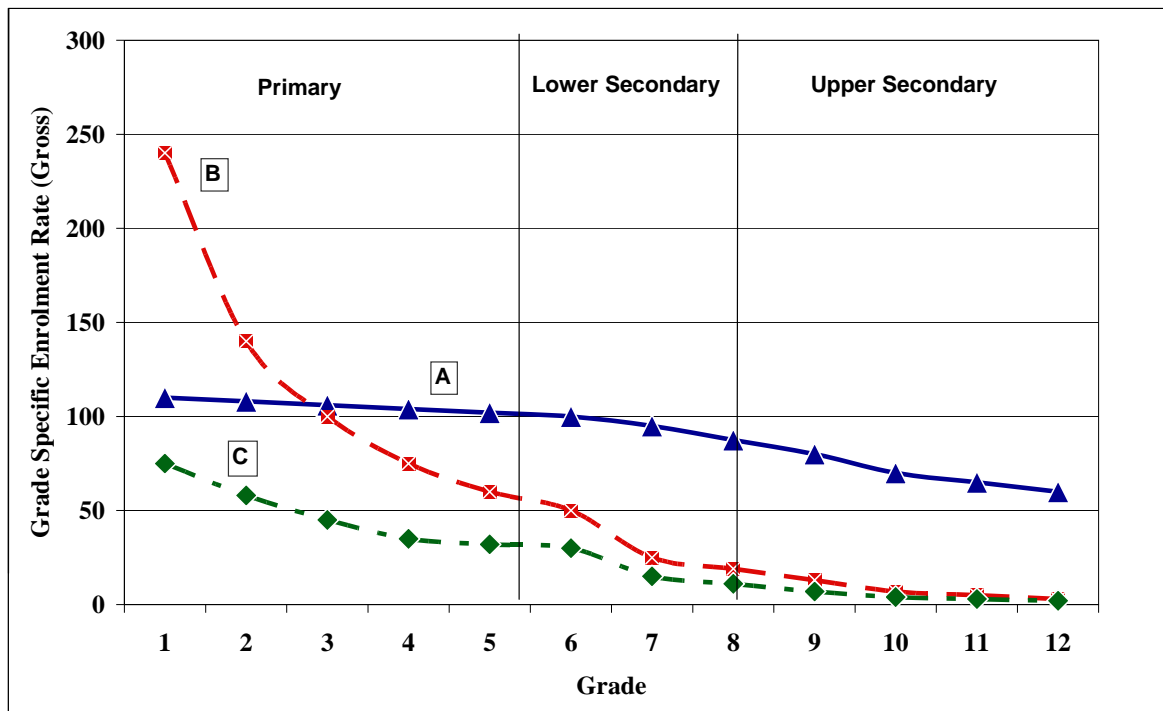
The second profile of participation and school progression is common in countries with high enrolment rates in the first year of primary schooling (point B in Figure 1). Usually, the grade specific gross enrolment rate is over 150 percent indicating that there is high grade repetition and over age children in primary 1 and there may be under age children as well. It is likely that the high enrolment rate in Grade 1 of primary school is the result of policies to increase access and achieve UPE. Nevertheless, by the end of the primary school cycle, the age specific enrolment rate drops significantly, even below 50 percent, indicating moderate to high drop out of primary school. Countries with this profile are mainly in sub Saharan Africa (SSA), for example, Uganda, Rwanda, Cameroon and Kenya.

The third profile includes countries with age specific enrolment rates in the first years of primary schooling below 100 percent; hence a high proportion of children are still unreached (point C in Figure 1). Participation rates in primary Grade 1 are below 85 percent and moderate drop out rates during the primary school cycle results in completion rates below 50

⁴ Information for Tanzania and Ghana was obtained from DHS data and extracted from “Educational Attainment” website from the World Bank (<http://iresearch.worldbank.org/edattain/>).

percent. Education systems in countries with this profile have to deal with reaching unreached children as well as improving efficiency to reduce drop out rates. Examples of countries with this pattern of school participation in primary education are Bangladesh, Ethiopia, Senegal and Haiti.

Figure 1: Grade Specific Enrolment Rates – Generic Patterns in Sub Saharan Africa



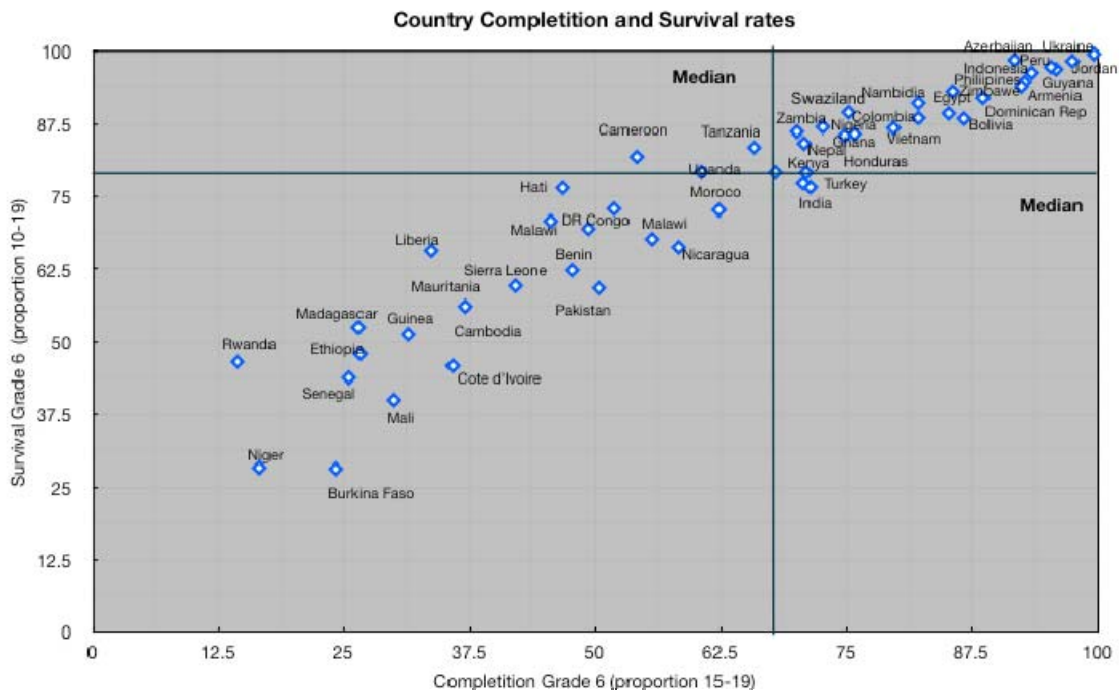
Source: Lewin 2007:19

To further our understanding of the severity of drop out for the achievement of UPE, Figure 2 shows the completion rate for primary school for pupils aged 15 to 19 years and the survival rate to the end of primary school for pupils aged 10 to 19 for 35 countries with information extracted from Demographic Health Surveys (DHS). Both the completion rate and the survival rate are indicators affected by the degree of drop out and repetition in the system, so in the absence of longitudinal data to measure the degree of drop out, we have to use alternative indicators.⁵ DHS surveys used are the most recent ones for which data are available and all are after 2000. The median values of the completion rate (67.9) and of the survival rate (79.2) are used to divide these countries. On the top right quadrant are countries with above median proportion of 15 to 19 year olds who completed primary school and above median survival rate for pupils aged 10 to 19. Below the median values are located countries with relatively low rates in these indicators. In Mali, for example, only 30 percent of the 15 to 19 year olds in 2006 had completed the last year of primary school and only 40 percent of the 10 to 19 year olds are expected to survive to the final year of primary school. For the majority

⁵ The survival rate uses the constructed cohort method to estimate the likelihood that a child in grade 1 will survive to the end of primary school. This estimate uses the observed pattern of drop out and repetition for other cohorts and applies it to the cohort in grade 1. The primary school completion rate is the ratio of the number of children graduating from primary school in a particular year to the population of official graduating age. Hence, there are differences in the use of drop out rate (and repetition rate) for these indicators as the survival rate uses ex-ante or expected drop out and repetition rates and the completion rate uses ex-post.

of these countries survival and completion rates are much below what is needed to achieve UPE.

Figure 2: Survival to Grade 6 versus completion to Grade 6 in 35 developing countries



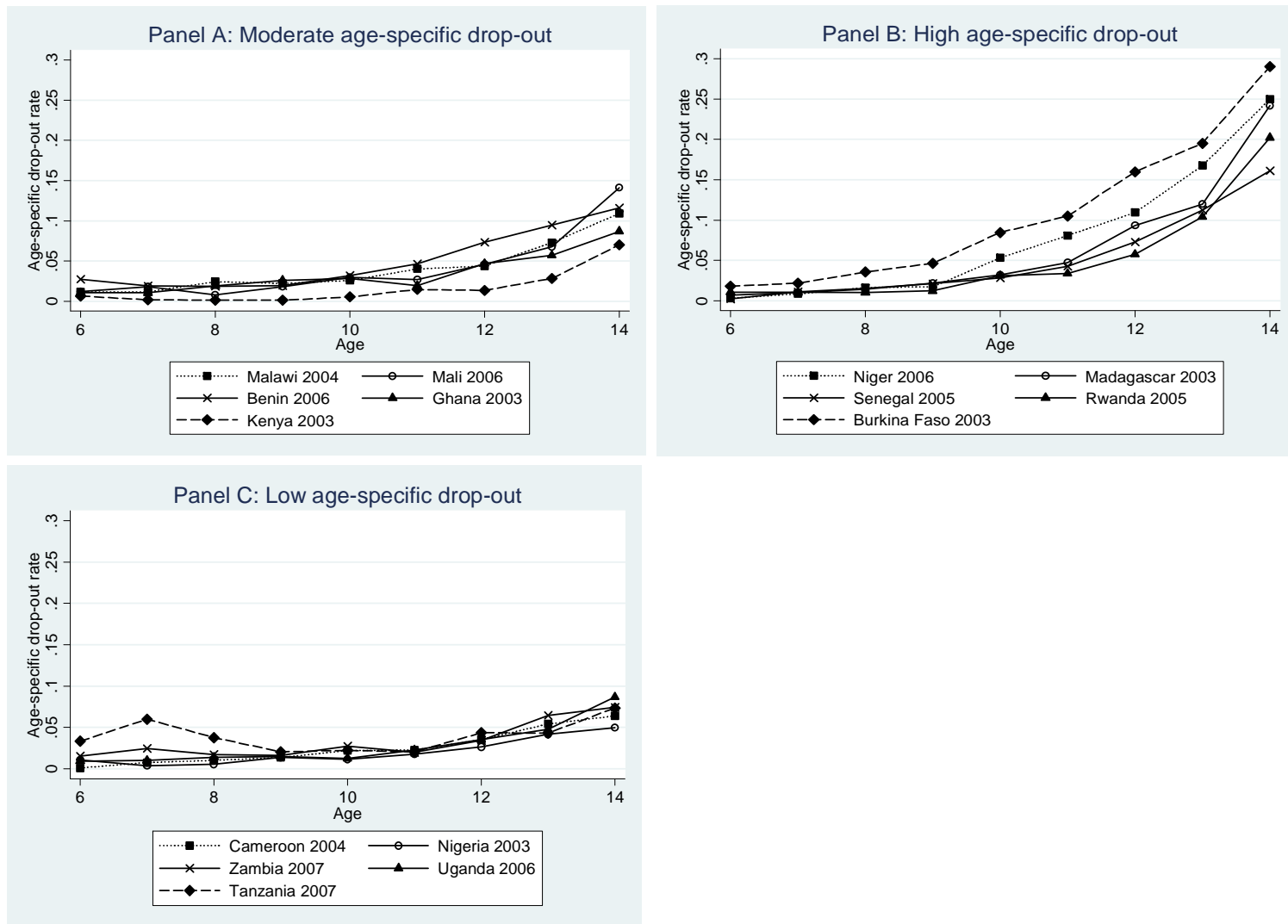
A key issue for this paper is to identify clear points within the primary school cycle where children are more likely to drop out from school. Figure 3 provides the first suggestive evidence for this issue using data from DHS for 15 SSA countries. For each country, age-specific drop out was measured by the proportion of children of certain age who were not attending school in the year of the survey but did attend in previous years divided by the total number of children of that age who have attended school. It is clear from Figure 3 that, in all countries, drop out rate for children aged 6 to 8 is relatively small, at less than 5 percent. Children aged 6 to 8 can only drop out from school once they have started. This evidence is consistent with EPDC (2009). Using data from DHS in 35 countries, EPDC (2009) estimated that pupils who are under age or are on time are more likely to repeat the first grade of primary school than pupils who are over age in all countries except Colombia, Honduras and Peru. EPDC (2009) results show that in Cameroon, for example, around 26 percent of Grade 1 pupils are under age, of these, over one-third repeat Grade 1. In India, where the overall repetition is relatively low, nearly all of the pupils who repeat are under age. Also, EPDC (2009) shows that in grade 1 of primary school drop out rates are relatively small (below the average for primary school) and there is not a consistent pattern of drop out by over age enrolment. In only half of the countries under study, drop out from grade 1 for pupils who were over age by 2 or more years was the highest. In the other half of the countries there are no differences in drop out rates from grade 1 of primary by over age enrolment.

Age-specific drop out rates for older children increase drastically after the age of 10 (Figure 3). In some countries such as Niger in 2006 and Burkina Faso in 2003 more than one-quarter of 14 year old children who started school dropped out (Figure 3). This result reinforces the well know finding that the older the child is, the greater the chances of not completing the basic cycle of primary school (Cameron, 2005). This is due to the fact that for older children the opportunity cost of schooling increases significantly and with this a pressure to work or to

get married (Cain, 1977; UNESCO, 2005). Our findings are also complemented and further reinforced by the work of EPDC (2009). EPDC findings in 35 countries suggest that there is a strong positive relationship between relative age-in-grade and drop out rates at the end of primary school. During the final year of primary school, children who are over age by two or more years have the highest drop out rates in all 35 countries. The next highest drop out rate is for children who are over age by one year, followed by children who are on time for their grade and finally, the lowest drop out rate for the final year of primary school is for children who are underage but who have managed to reach the final year of primary school.

Since by definition, children who are not promoted to the next grade must either repeat the same grade or drop out of school, two general conclusions can be drawn about patterns of participation and drop out rates from existing results. First, for countries with high gross enrolment rates in Grade 1 of primary school, i.e. those in profile 2, the observed reduction in gross enrolment rates across cohorts from Grade 1 to Grade 2 is mainly the result of high repetition rates, usually for under age children. Second, towards the end of the primary school cycle reductions in grade specific gross enrolment rates for countries in profile 2 and 3 are likely to be the result of drop out, mainly from over age children. Nevertheless, in countries with high stake examinations at the end of primary school, for example Kenya, gross enrolment rate at the end of primary school can be affected by children who repeat, or are encouraged to repeat, to increase their chances for a successful transition into secondary school. In these cases, gross enrolment rates in the final year of primary school are likely to go up.

Figure 3: Age-specific drop out rate in several SSA countries using DHS data



Drop out: Country Differences and Equity Issues

Drop out rates differ significantly between countries. Using data from Demographic Health Surveys on the population of 16 and 17 year olds, assuming that by this age children should have completed a cycle of primary school,

Table 1 shows the proportion of these cohorts who never attended school, of those who attended school, the proportion who dropped out without completing primary schooling, those who are still in primary school, which we regard as over age, and those who completed at least primary school. In Kenya in 2003, the proportion of 16 and 17 year olds without access to education was 9.1 percent. Of those who attended school, 16.1 percent dropped out without completing primary school. In addition, we also estimated that 45 percent of 16 and 17 year olds in Kenya are still in primary school, which means that these children are over age, with an increased risk of dropping out. Only 38 percent of these cohorts completed primary school. Assuming that the educational experience of these cohorts reflects the inefficiencies of the system, then Kenya has a relatively big problem of over age children in primary school, but a relatively small problem with respect to access to school and relatively sustained enrolment rates. In Malawi, Rwanda and Uganda over age children in school is also a problem, perhaps not as high as in Kenya, but non-completion of primary school remains relatively high as indicated by the high drop out rate and low completion rate for these cohorts.

Other countries have a large proportion of children out of school, which means that initial enrolment rates are low, drop out rates are relatively high and the proportion of over age children is relatively small. This is the case of Niger in 2006, where 56 percent of 16 and 17 year old were ever enrolled in school; of those were enrolled 30 percent dropped out, but only 7 percent remained over age in primary school. Mali, Burkina Faso, Senegal and Benin showed similar patterns. Cameroon and Ghana show a relatively low proportion of 16 and 17 year old who did not have access to school, and had low to moderate levels of drop out and over age for these cohorts. Two contrasting cases are Nigeria and Madagascar. In Nigeria, 22 percent of 16 and 17 year olds did not attend school, but the drop out rate for these cohorts was estimated to be the lowest of these countries. In Madagascar, 14 percent of 16 and 17 year old did not have access to school but 30 percent of those who had been to school had dropped out. The proportion of over age children in school was very low in Madagascar, and moderate in Nigeria.

Table 1: Proportion of 16 & 17 year olds without access to school, drop out, over age and primary school completion in sub Saharan Africa

	Never attended	Drop out without primary school ⁽¹⁾	Over age still in primary ⁽²⁾	Completed primary
Kenya 2003	9.11%	16.15%	45.36%	38.49%
Senegal 2005	41.81%	30.21%	21.59%	48.20%
Niger 2006	56.35%	29.90%	7.11%	62.99%
Mali 2006	50.86%	18.64%	14.38%	66.98%
Madagascar 2003	13.71%	30.54%	4.40%	65.07%
Cameroon 2004	8.43%	12.89%	15.48%	71.63%
Ghana 2003	11.33%	9.44%	11.56%	79.00%
Malawi 2004	5.61%	27.76%	40.42%	31.83%
Nigeria 2003	21.84%	3.19%	13.15%	83.66%
Rwanda 2005	8.11%	47.02%	36.99%	15.99%
Uganda 2006	5.54%	22.41%	39.54%	38.06%
B. Faso 2003	58.28%	27.21%	1.93%	70.86%
Benin 2006	27.57%	17.92%	9.81%	72.27%
Zambia 2007	2.22%	11.80%	26.70%	61.50%
Tanzania 2007	7.37%	11.29%	24.26%	64.45%

Source: DHS own calculations. Notes: (1) The proportion of children who dropped out without completing primary school is estimated by the total number of 16 and 17 year olds who had dropped out and not completed primary school relative to the number of 16 and 17 year olds who attended school. (2) The proportion of over age children still in primary school is estimated by the proportion of 16 and 17 year olds who were still in primary school at the time of the survey.

Although there has been progress in improving school participation since the 1990 World Conference on Education for All in Jomtien, there are still large inequalities in drop out rates according to wealth, gender and location in many countries. Table 2 shows equity in drop out rates, for young people aged 16 and 17 year old, who left education without completing primary schooling, in several SSA countries. In all SSA countries except Kenya there is a significant difference between the proportion of 16 and 17 year olds from the richest quintile of the wealth distribution that dropped out without completing primary school and those from the lowest quintile. In Madagascar, for example, 12 percent of young people aged 16 and 17 in 2003 that lived in the richest households and who had access to school dropped out without completing primary school; this compares extremely favourably with the 70 percent of young people from the poorest households who had access to school but did not complete primary education.

Table 2: Equity in drop out without primary school for 16 & 17 year olds: wealth, gender and location in several SSA countries

	Wealth			Gender			Location		
	Richest	Poorest	Diff	Boys	Girls	Diff	Urban	Rural	Diff
Kenya 2003	17.6%	19.9%	n.s.	12.8%	19.4%	**	20.5%	14.4%	**
Senegal 2005	23.3%	34.6%	**	26.4%	34.3%	**	28.1%	33.4%	*
Niger 2006	24.9%	48.6%	**	29.4%	30.6%	n.s.	25.7%	41.9%	**
Mali 2006	10.2%	32.6%	**	15.1%	23.4%	**	13.4%	24.3%	**
Madagascar 2003	11.7%	69.8%	**	28.7%	31.9%	n.s.	20.6%	51.3%	**
Cameroon 2004	4.6%	27.5%	**	11.0%	14.9%	**	8.7%	18.2%	**
Ghana 2003	4.7%	20.8%	**	8.5%	10.4%	n.s.	7.1%	11.5%	*
Malawi 2004	12.0%	37.2%	**	22.0%	33.7%	**	17.3%	29.4%	**
Nigeria 2003	0.7%	6.4%	**	1.6%	5.0%	**	3.2%	3.1%	n.s.
Rwanda 2005	39.0%	56.5%	**	44.6%	49.3%	*	43.1%	48.1%	n.s.
Uganda 2006	12.0%	32.6%	**	19.4%	25.1%	**	11.3%	24.5%	**
B. Faso 2003	18.0%	40.2%	**	27.6%	26.6%	n.s.	19.3%	35.3%	**
Benin 2006	12.9%	30.4%	**	14.5%	23.0%	**	14.6%	21.6%	**
Zambia 2007	2.6%	22.3%	**	7.8%	15.5%	**	6.7%	16.3%	**
Tanzania 2007	7.6%	14.3%	*	12.2%	10.4%	n.s.	8.0%	12.2%	*

Source: DHS own calculations. Notes: The proportion of 16 and 17 year olds who drop out without primary school is calculated as in Table 2. Asterisks *, ** indicate that the difference in drop out rates between groups is statistically significant at 5 & 1% level, respectively (n.s. stands for non-statistically significant).

Gendered differences in drop out rates still remain in most countries, although we did not find statistical gendered differences in Niger, Madagascar, Ghana, Burkina Faso and Tanzania. In countries with gendered differences in drop out rates, we found that the difference between girls and boys were not as large as they were between young people from rich and poor households. Nevertheless, there is consistent evidence showing that a higher proportion of girls aged 16 and 17 years old that had access to school dropped out without completing primary school than the proportion of boys. It is possible that school safety and teenage pregnancy are factors that could explain the higher risk of school drop out for girls (Colclough et al., 2000; Leach et al., 2003).

Finally, drop out rates also differ significantly according to place of residence in all SSA countries except Nigeria and Rwanda. In general, the drop out rate without completing primary education for 16 and 17 year olds living in rural areas is higher than for those living in urban areas. This may be explained by seasonal labour, lower expectations for school progression beyond primary education, distance to school and fewer opportunities for secondary schooling in rural areas (Hunt, 2008). In Kenya, however, young people aged 16 and 17 years in 2003 who lived in urban areas had a higher proportion of school drop out without completion of primary education than young people who lived in rural areas. It is possible that urban poverty in Nairobi contributes to the differential in drop out rates between urban and rural areas in Kenya.

Causes of Drop out

It is clear that the number of children enrolled in school has increased over time. Nevertheless, a significant proportion of children who start primary school are not completing this cycle. There are many factors associated with drop out, some of which belong to the individual, such as poor health or malnutrition and motivation. Others emerge from children's household situations such as child labour and poverty. School level factors also play a role in increasing pressures to drop out such as teacher's absenteeism, school location and poor quality educational provision. The system of educational provision at the community level generates conditions that can ultimately impact on the likelihood of children to drop out from school. Therefore, both demand and supply driven factors, are embedded in cultural and contextual realities, which make each circumstance different. Nevertheless, it is possible to make general points about the causes of drop out.

First, there is not one single cause of drop out. Drop out is often a process rather than the result of one single event, and therefore has more than one proximate cause (Hunt, 2008). Second, poverty⁶ appears to influence the demand for schooling, not only because it affects the inability of households to pay school fees and other costs associated with education, but also because it is associated with a high opportunity cost of schooling for children. As children grow older, the opportunity cost of education is even larger, hence increasing the pressure for children to work and earn income for the household as opposed to spending time in education. Third, distance to schools, poor quality of education, inadequate facilities, overcrowded classrooms, inappropriate language of instruction, teacher absenteeism and, in the case of girls school safety, are common causes for school drop out (Colclough, et al. 2000). These are seen as supply side causes of drop out, mainly driven at the school level.

⁶ Poverty is seen here as a multifaceted concept, including economic, social and political elements.

Poverty also interacts with other points of social disadvantage, with the interaction of factors putting further pressure on vulnerable and marginalised children to drop out (Hunt, 2008:52). For example, orphans, migrants, lower caste/scheduled tribe children and children from minority language groups in many, but not all, contexts have disrupted access, and are more prone to drop out. For example, around 15 to 20 percent of Roma children in Bulgaria and 30 percent in Romania do not continue in school post Grade 4 in primary school (UNESCO, 2010). Poor indigenous girls in Guatemala are far more likely to drop out than non-poor, non-indigenous girls (UNESCO, 2010). Gendered social practices within households, communities and schools, influence differing patterns of access for girls and boys. In most contexts girls have less access and are more prone to dropping out, but increasingly, often in poor and urban environments, the pressure seems to be on boys to withdraw. Within gendered social practices, school safety seems to be an important factor for retaining girls at school, whereas availability of income generating opportunities and flexible seasonal schooling could promote school retention for boys (Colclough et al., 2000; Leach et al., 2003).

Additional factors affecting motivations and decision-making relating to educational access are also key to understandings of dropping out. Perceptions of how education will influence lifestyle and career possibilities/probabilities, life chances in the labour market are shown to be factors in both early withdrawal and sustained access in different contexts. The availability of options to access secondary school and beyond, shape decision-making of parents regarding the continuation of children in primary level. Perceived quality of education and the ability of children to make progress through the schooling system can affect the priority placed on schooling within the household. It is also evident that children whose parents have received some sort of schooling are more likely themselves to attend school for longer. In particular, a mother's education level often influences length of access for girls. For example in rural Pakistan, girls whose mothers have some sort of formal schooling are less likely to drop out from school (Lloyd, Mete and Grant, 2009).

There are often precursors to dropping out, where children could be seen to be at risk or vulnerable to early withdrawal (Hunt, 2008; Lewin, 2008; Ampiah and Adu-Yeboah, 2009). These include grade repetition, low achievement, over age enrollers and children who have regular absences or previous temporary withdrawals from school. It is unclear whether grade repetition increases the chances of completion, but what is apparent is that grade repetition extends the age range in a particular grade, and thus increases the possibility of drop out. Teaching to different age groups has different requirements in terms of teaching/learning practices and curriculum (Little, 2008). Yet, in some countries age ranges in a Grade 1 class might range from 4 to 11 years, and in Grade 6 from 10 to 21 years (Lewin, 2007). Children who are over age, due to late enrolment or high grade repetition, limit the number of years children have in school as older children have greater pressures to earn income for the household (EPDC, 2009).

Policies and Interventions to Prevent Drop out

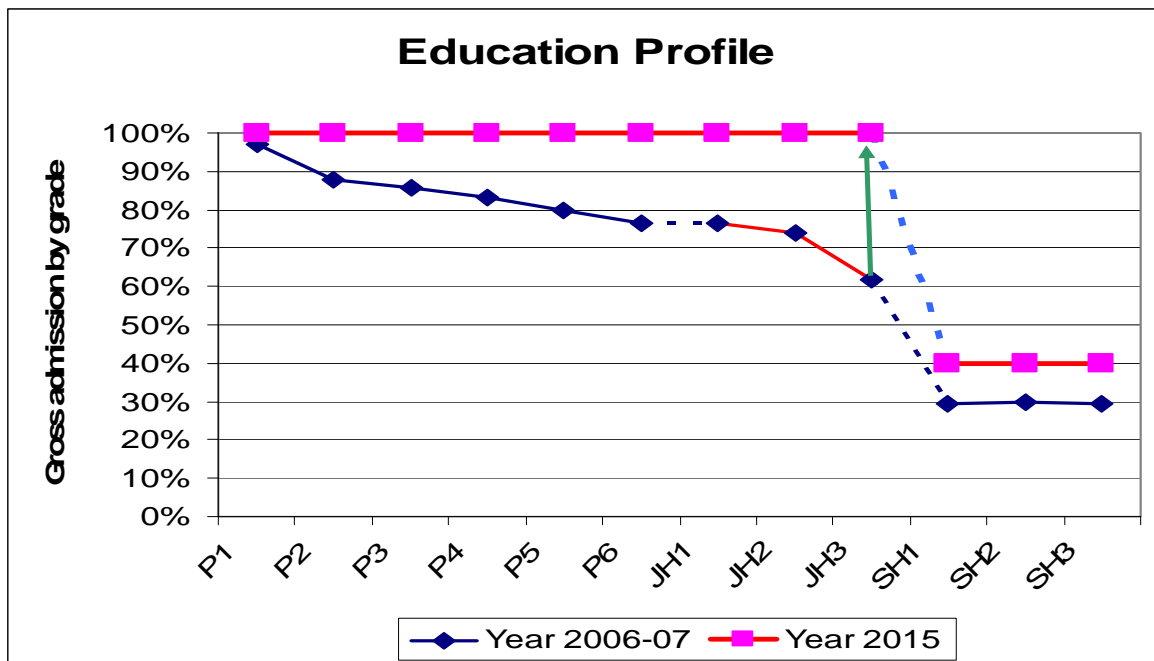
In this section we select two country case studies to investigate policies and programmes designed to tackle drop out: Ghana and Tanzania. The selection of these countries is based on evidence on recent policy initiatives that might have contributed to some improvement in the dropout rate as well as on the variety of interventions designed to tackle drop out. Although one may argue that drop out rates remain relatively high in these countries, deep knowledge of the policy context and household's realities provides us an opportunity to better understand

the reasons why progress in drop out reduction has not been as effective as previously planned. We conclude this section with a description of effective measures to tackle drop out drawn from these case studies and other research.

Case Study: Ghana

Ghana has witnessed a steady decline in the proportion of children dropping out of primary school since it launched its major education reforms in 1987. Figure 4 shows the gross admission rate by grade for pre-tertiary cycle for 2006/07. Provided that children enrol in school and do not drop out or repeat, GAR should remain at the same level (100%). As figure 3 shows dropout is highest from primary 1 to 2 and Junior high 2 to 3. Generally there is a steady decline in gross admission from Grade 1 to the end of primary schooling, Grade 6. Retention from primary year 6 to the end of junior high year 2 appears to stabilise and drops significantly from junior high school year 2 to junior high school year 3 mainly as children begin to dropout for lack of progress in learning as they approach the Basic Education Certification Examination (BECE) at the end of junior high school year 3. BECE is both terminal and continuing with only about 40% of graduates expected to continue into limited senior high schools in the country. As figure 3 shows, once students get to the senior high school dropout becomes negligible.

Figure 4: Education Profile in Ghana



Source: Ministry of Education, 2009

Overall, enrolment data from 1998 to 2006 shows a consistent reduction in the number of dropouts (MOESS 2007). Generally, dropout rates across grades are similar (4 percent), except for Grade 3 (5 percent) though there are wide regional variations. The regions with worse drop out rates are also the most economically deprived - the Upper West, Northern, and Central regions (MOESS, 2007). The introduction of programmes such as the capitation

grant scheme⁷ and the school feeding programme⁸ at the basic school level appear to have helped reduce overall rates of dropout. Capitation is a fee-free policy providing direct funding to all public basic schools based on enrolment. What it has achieved is to remove the cost burden to parents of enrolling their children in school and attracted many children to enrol, including those who previously dropped out because of fees. In 2005, when capitation was introduced enrolment across primary to junior high school increased by about 17 percent (MOESS 2007). All the same, steady decline in participation across the basic school cycle (see figure 3) is indicative of specific problems that continue to reduce completion with poverty mainly responsible for some children dropping out of school (GSS, 2003). New evidence emerging from the Consortium for Research on Educational Access, Transitions and Equity (CREATE) studies in Ghana point to other contributory factors: teacher unavailability, unsympathetic teacher attitudes to children who attend irregularly because of poverty, school level practices (e.g. corporal punishment), and over age attendance, all contributing to the increased likelihood of drop out (Ampiah & Adu-Yeboah, 2009; Ananga, 2010 forthcoming). In rural Ghana, for example, grade repetition and teacher unavailability as well as the attractive pull of seasonal economic activities have been identified as key factors contributing to drop out (Ananga, 2010).

Although Ghana has not earmarked specific policies to address these emerging insights into the problem of drop out, generally the introduction of capitation has encouraged some drop outs to re-enrol – about a fifth of out of school children enrolled as a result of this policy, many of them drop outs. In those areas where school feeding has been introduced there is evidence that drop out has also reduced (MOESS, 2006). In one particular district, the increase in enrolment included about a third of children who had previously dropped-out (Akyeampong et al, 2007). Inevitably, both capitation and the school feeding programme attract children back into school who are overage and subsequently likely to drop out again. This may explain why dropout in general has declined moderately as opposed to significant decline in the Ghanaian case as the likelihood of staying in school and not dropping out is much higher when children are enrolled at the correct age (Akyeampong 2009; MOESS, 2008). It raises the importance of introducing policies which ensure that children enrol at the correct age for their grade in the first place if dropout is to be reduced even further in Ghana. This is one important policy message coming out of the Ghana CREATE work.

There is some evidence that when teachers take a more proactive approach to the problem of poor participation and drop out this is able to improve the situation. CREATE work in southern Ghana has revealed that a few teachers in some schools sensitive to the problem of dropout are able to intervene to prevent drop out and encourage ‘drop-in’. They have achieved this by identifying children at risk of dropping out and attended to the factors that contribute to their chances of dropping out such as, providing writing material and food on condition that children attend school regularly. In some rare instances, schools have allowed children to take a few days off during a harvest season and offered separate tuition for them upon their return. Other schools have organised teachers to visit truant children and their parents and encouraged these children to attend (Ananga, 2010 forthcoming). These measures are indicative of what schools can do if sensitised about their role in reducing drop out.

⁷ The scheme pays \$4 per pupil to the schools to defray the costs schools previously charged pupils.

⁸ The school feeding programme was introduced in some deprived schools across the country

Incentive structures might be needed to make schools more proactive in identifying children at risk of dropping out and instituting steps to address the risk factors. From the example of CREATE work in Ghana, we see the role of research in identifying context specific factors that have direct implications for the kind of policies that might address the problem of school drop out. CREATE studies is clearly showing that over age attendance, the nutritional status of children and underachievement are areas that should be the target of reforms if further improvement in completion of basic education is to be attained (Ampiah, Akyeampong et al., 2010 forthcoming).

Case Study: Tanzania

Tanzania has an unusual profile of high enrolment, relatively low drop out and some 24.3 percent of students over age but remaining in primary school. The drop out rate has declined significantly since the implementation of UPE in 2002 albeit with a slight upward trend in 2008-9 of 3.70%, up from 3.20% in 2006-7 (MoEVT, 2009) Several factors contribute towards this. Firstly, there is a political and budgetary focus on UPE and completion rates with compulsory enrolment of all children from 7 upwards including over age children not yet enrolled. Secondly, education was devolved to the regions with a community approach to education from the village upwards. Thirdly, learning was made more beneficial to young children in the classroom, and finally, alternative forms of education exist for out-of-school and over age students.

This early success of near UPE in the late 1970's influenced more recent educational policy by the Ministry of Education and Vocational Training (MoEVT) by setting up a pattern of achievable UPE – and for all groups. Putting the greater part of the education budget into primary education (65.9 percent from 1995/6-2000/01 - Mrutu, 2005) the MoEVT abolished school fees in 2001, and aimed for UPE by 2008. Crucially, they made school enrolment compulsory for all 7 year old children and all over age children out of school from 8-11. The focus remained on the completion of primary education before the expansion of secondary school.

Education was devolved to the regions, with community involvement and access through setting up the Ward-Based Education Management clusters and teachers' resource centres (Mrutu, 2005). The Child Friendly (CFS) initiative was implemented in 11 districts from 2000, attempting to make classrooms more child-centred. Kiswahili, spoken by the great majority of Tanzanians as a first or second language, became the Language of Instruction in the first few grades of primary schools and an official language as well as English (Brock-Utne & Halmdottir, 2004). Furthermore, Standards 1-3 are only taught by experienced teachers rather than NQTs. Some of these more experienced teachers are part of the cohort of long-serving teachers from the 1970's who saw teaching as a vocation and a form of political commitment (Barratt, 2008).

Despite these school-based measures, repetition and drop out rates remain highest in Standard 1 and 2, reflecting the short term nature of the compulsory enrolment policy of over age students. The curriculum assumes children have had some pre-primary skills so are ready to begin formal instruction. Urban children are more likely to have attended pre-primary school and so both repetition and drop out rates are greater in rural areas.

7.5 percent drop out of school between Standard 4 and 5. This cohort is made up of three groups: those who failed the Standard 4 national examination the first time and who perhaps being over age did not want to remain in school once reaching adolescence; those who had failed a second time and who were barred from promotion; those who had repeated Standard 1 and now also failed Standard 4 and so were barred from further repeats according to government policy (MOEVT Statistics). From 2008, however, the Standard IV examination is to be used to diagnose students needing remedial education rather than as a promotional tool (MoEVT, 2009). Students who are falling behind are given extra classes, mainly in Standards I and II, but also Standard IV, particularly in English or Mathematics. Attendance here is dependent on parental support and if not give, this can lead to drop-out, often high amongst orphans (TPA interim findings, July 2010).

The lowest repetition rate is in the last two years of school at 3.4 percent (MoEVT). For those who successfully make it to Standard 6, the average age was 15.1 years – over age by 2 years. Some of this, however, reflects a backlog of over age students created over the years of primary school. Interestingly, on average, Standard 6 pupils had both parents who had completed all of primary education and who therefore put emphasis on their child's education (Mrutu et al, 2005). Those over age students in Standard 6 may also be those who are successfully absorbed within the Complementary Basic Education Project (COBET). This more informal school system is set up locally by the MoEVT with no fees or uniform, focusing on numeracy, literacy and life skills and is now expanded to all regions and placed within mainstream education. COBET units are sometimes attached to primary schools or run by NGOs such as ActionAid's ACCESS programme. Students attend when they are able entering the mainstream either at Standard 4 or the final year, completing in 5 rather than 7 years (Mrutu et al, 2005). According to the Ministry's own figures, by 2006, some 556,031 out of school students had been enrolled in COBET centres (MoE, 2010) and 30,667 mainstreamed into Standard V (Hakielimu, 2007). However, 2008-9 saw a decrease to 82,989 enrolling, indicating a downward trend from 185,206 in 2006-7 (MoEVT, 2009, p.13). In 2008 14,433 learners sat for the Grade IV examination and were mainstreamed into formal school education whereas 8,213 learners sat for Grade VII examination and out of them 4,595 passed and joined secondary education (MoEVT, 2010). The MoEVT see this decrease as a sign of both the success of the all-embracing enrolment policy and completion rates as well as COBET itself but continue to target hard to reach students and those in nomadic or fishing communities.

The Radio Instruction to Strengthen Education (RISE) uses Interactive Radio Instruction (IRI) for children who do not attend pre-primary school (Zanzibar) and those underserved, i.e. some distance from a school or having to work (Mainland). Like COBET, the aim is to channel students into mainstream primary schools, usually around Standard 5. head teachers and district education and academic officers also receive training and information about RISE to support an integrative approach (USAID, 2010; EDC, 2010). In addition, the government builds hostels, particularly in the Central and Southwest Zones so that children of pastoralists, fisherman and fruit gatherers can send their children to school. The Integrated Community Based Adult Education (ICBAE) and Non-Formal Education strategies allow their parents to actively gain an education.

Policy Messages

Based on the case studies reviewed and the expertise accumulated from the Consortium for Research on Educational Access, Transitions and Equity (CREATE) Box 1 presents some interventions that might be introduced to tackle the problem of school drop out. From these interventions, the following policy messages are drawn reflecting insights from the CREATE work and analysis of completion and retention data:

Policy message 1: Drop out rates have to be tackled in conjunction with reductions in over age, in particular at higher grades of primary school.

It is clear that over age children are more likely to drop out towards the end of the primary school cycle than children who are in the appropriate age for their grade. As children grow, the opportunity cost to them of remaining in school increases, especially if they are from poor households. Consequently, this exerts pressures towards child labour and taking up household responsibilities. In addition, overcrowded classrooms together with poor quality of teaching make the supply of primary schooling less attractive and acts to push children at risk of dropping out (for example over age children) to eventually drop out. Tanzania's dual policies of supporting promotion through primary school, reducing repetition, and redirecting overage children out of school back into mainstream at a faster progression appears to reduce drop out rates. Hence, a combination of demand and supply factors often acts to determine children's likelihood to remain and complete a full cycle of primary education.

Policy message 2: Flexible schooling hours and systems, together with multi-grade and multi-age teaching approaches and appropriate language of instruction, can help to reduce drop out rates.

Many children, particularly those in rural, agricultural areas have pressures on them to work which often clash with traditional schooling timetables. Temporary withdrawals in harvest times and for migrating communities pull children away from school, often leading to more permanent drop out (Hadley, 2010). Flexible schooling timetables have been known to cut drop outs in areas where outside social and economic factors pose a serious threat to consistent attendance. In practice, schooling times might be adjusted during peak harvest periods or when local economic activity is highest to limit interference with children's work duties, shift systems and evening classes might be introduced. The annual school programme may also shift so those involved in seasonal tasks are not excluded (Kane, 2004). These represent bold measures that require consultations and agreement with local stakeholders, opinion leaders and households to arrive at mutually agreeable school times. This will also ensure that the parties have some responsibility in ensuring compliance. We do know that the increase in participation in many sub-Saharan Africa countries has been accompanied with an increased proportion of over age schooling. Classrooms are increasingly becoming places where there is a wide range in age and ability. This requires measures which recognise a wide age and ability range in your typical classroom. Evidence has shown that multi-grade schooling can positively be used to target the different learning needs of children and potentially reduce drop out (Little, 2008). Finally, language of instruction in the early years can influence drop out rates (Hunt, 2008). Ensuring that teachers are trained to use local language in the early grades to teach would mean better understanding for children starting school, reducing the likelihood of drop out due to lack of academic progress. Tanzania's policy of using only more experienced teachers for the first three grades together with the use

of Kiswahili – albeit not a local language for all children – and remedial classes can be seen as further ways to prevent drop-out.

Box 1. Effective Measures to Tackle Drop-out

School Related Measures

- Pre-school centres
- Flexible schooling hours and systems
- Automatic promotion
- Language of instruction
- Multi-grade and multi-age teaching approaches
- Availability of post-primary school opportunities
- Monitoring, accountability and incentives
- Free textbooks
- School feeding programmes

Financial Measures

- Fee free and levy free schooling
- Access to credit
- Conditional cash support - food for education
- Scholarship programmes

Other measures

- Health interventions
- Community involvement
- Adult education programmes
- Alternative forms of educational provision (e.g. NGO)

Policy message 3: Providing micro-enterprise support for poor households is necessary for improving school retention.

There are a number of interventions which give households and children support, either monetary or in-kind, and these could be linked to the condition that households enrol children in school and ensure that they attend regularly. Attending regularly ensures that learning is sustained to achieve academic progress which reduces the likelihood of drop out due to poor progress in learning and achievement. Evidence on school attendance from the conditionality imposed is mixed; it may lead to improved enrolment but not attendance (Banerjee and Duflo, 2006) or it may lead to improved enrolment and attendance but its impact on performance is uncertain, leaving children still at risk of dropping out (Hall, 2008). To limit the effect of the latter measures must be introduced that ensures that teachers attend regularly and teach consistently. On the other hand, research shows that unconditional social support, for instance income grants for children, is likely to empower households in their decision making towards children's schooling and help reduce drop out rates, as shown by evidence from South Africa (Case, et al. 2005).

Policy message 4: Improved child health and nutrition and dealing with the gendered nature of the process of drop out, are important to improve retention and completion of primary school.

Government efforts for improving school access, retention and achievement will not be successful unless accompanied by early and continuous health interventions to tackle nutritional deficiencies and other health related illness and conditions that impact on children's school absenteeism and their overall cognitive development (Pridmore, 2007; Buxton, 2010 forthcoming). Gender cuts across a wide range of constraints that lead to drop out. There are gendered cultural practices (Colclough et al., 2000), school safety issues (Leach et al., 2003) and teenage pregnancy (Kane, 2004) that affect the opportunities of girls and boys to complete primary school.

Policy message 5: Although extra resources to tackle drop out at school community level may be useful, given the range of factors – economic, social, health which are likely to interact to impact participation and completion of schooling, a comprehensive sector wide approach with interconnectivity between relevant government departments would achieve more sustainable impact on eliminating or drastically reducing school drop out.

Our case studies illustrate that several policies and interventions help to reduce rates of drop out. Hence it is tempting to ask how much more resources are needed for the education sector to reduce drop out rates and with this achieve UPE. It is important to highlight that educational provision will be provided even without any considerations to drop out rates and non-completion of primary schooling. The question is how to manage educational provision so that it also leads to improvements in completion rates for a full cycle of primary or basic education. Certain approaches, highlighted in Box 1 such as the provision of early education in pre-school centres are likely to be resource intensive. Flexible school hours and automatic promotion are probably much less resource heavy. Health interventions in schools should contribute to drop out reductions and should be planned and delivered with collaboration between government departments engaged in health and/or education service delivery. School feeding programmes that aim to provide nutritious meals to children are likely to have the double benefit of improving attendance and general well-being of children.

Policy message 6: There is not one single intervention that will solve the complexity of the process of school drop out. It is important to take into account the possible externalities of different interventions.

Perhaps the only two policies that can be used to directly tackle the problem of drop out are on-time registration in Grade 1 and automatic grade promotion throughout primary school. Nevertheless, these policies alone are unlikely to lead to 'meaningful access' as described by CREATE unless accompanied by general improvements in the demand and supply of primary education and importantly the quality of that provision. As discussed by Hunt (2008), late enrolment and high grade repetition are only two of the precursors of drop out. Irregular attendance and very low achievement are other precursors of drop out and these may have very different causes than late enrolment and repetition. In addition, the process of drop out is affected by a number of individual, household, school and community factors. Interestingly, different policies and interventions exist to help families overcome disadvantage and marginalisation. It is unclear however whether these policies and interventions have complementarities that can impact upon children's completion of primary school.

Policy message 7: Country specific research can be instrumental in identifying appropriate policies and interventions.

The case study of Ghana highlights the importance of research for policy decisions. Up until 2007, the issue of over age children in school and its effects on attendance and progression was not part of government policy discourse on how to improve access and reduce rates of drop out. Since the work of CREATE, greater awareness has been created about where over-age attendance is acute and what factors might be contributing to the problem. Recent education sector performance reports in Ghana have used CREATE analysis and data to pinpoint this problem and how it might be addressed. CREATE work has been instrumental not only in estimating the magnitude of the problem, but also in highlighting the phenomenon of drop out as a process, and the linkage between over age children and drop out. This has lead to greater awareness of the importance of ensuring on-time registration in Grade 1.

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