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SAVINGS GROUPS, LIVELIHOODS AND EDUCATION: TWO CASE STUDIES IN GHANA

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Abstract: Does access to better village-level facilities for saving and borrowing improve educational outcomes and expenditure? Based on a literature review and case studies in Ghana commissioned by Plan UK, this paper finds that savings groups programmes, such as village savings and loans associations, help poor rural households pay for education in some contexts but not others. Households use loans directly to pay school expenses and also invest in income-generating activities that allow them to raise educational expenditure in the longer term. There are additional indirect effects on education through health care, nutrition and household decision-making. Copyright © 2015 John Wiley & Sons, Ltd.

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1 INTRODUCTION

Recent reviews have suggested that microfinance does not always live up to the expectations that have been raised in terms of its impact on poverty and development, and it has been surprisingly hard to find conclusive evidence of positive impacts (Bauchet *et al*., 2011; Duvendack *et al*., 2011; van Rooyen, Stewart & de Wet, 2012). Microfinance programmes have been criticised for an inability to reach the poorest, a tendency to lead to problematic levels of debt, lack of sustainability, excessive emphasis on entrepreneurship and failure to account for the diversity of financial needs (Bauchet *et al*., 2011; Hermes & Lensink, 2011; Guérin, Roesch, Venkatasubramanian & d'Espallier, 2012). However, microfinance varies hugely in its target groups, mode of delivery and aims, which may account for some rather mixed results on its impact. In particular, programmes that focus

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on giving loans to credit-constrained small business owners have been found to work for people who can successfully build such businesses, but with little benefit for others (Bauchet *et al*., 2011).

Consequently, attention has turned both to different models of microfinance and to a finer-grained analysis of how different financial services can meet the needs of poor people. This paper contributes by focusing on one specific model of microfinance—savings group programmes along the lines of the village savings and loans association (VSLA) model introduced by CARE Niger in the 1990s. Community-managed groups offering savings and loans have a long history in both Africa and Asia, and the VSLA model drew on but adapted a tradition in many African countries of rotating savings groups. VSLA-like programmes have since been promoted by several large international non-government organisations and are estimated to reach over six million people, mostly in Africa (VSL Associates, 2012).

Although groups can usually decide for themselves exactly how the group will operate, their typical way of working is as follows. Members meet weekly and deposit their savings. The saved funds are used to provide short-term loans to members who request them, up to three times the amount they have saved. The accumulated savings, together with interest charged on these loans, are held by the group, and a share proportionate to the amount saved, minus any outstanding debts, is paid out to each member at the end of an annual cycle.

Thus, savings groups are a mixture of microcredit and microsavings, but with some particular institutional characteristics: greater access to credit is combined with a commitment to save regularly; there is no external injection of loan funds, and profit is kept within the same village; risk of bad debts is low; and once set up, the groups are maintained at the village level with little outside intervention. They are claimed to help reach the poorest groups that are excluded by other microfinance interventions and to have broader benefits for social and economic development (Allen & Panetta, 2010). A key difference with pure microcredit is that savings can *protect* vulnerable households against the impact of economic shocks, reducing their exposure to risk, as well as *promote* improved livelihoods by building an asset base (Hulme, Moore & Barrientos, 2009).

This paper considers whether these benefits of savings groups extend to education, drawing on findings from a qualitative study of two villages with savings groups in Ghana supported by the *Banking on Change* partnership between Plan UK, CARE International UK and Barclays.[1] In the following section, we review the existing evaluations of savings groups with a focus on direct and indirect educational impacts. Section 3 presents findings from the Ghana case studies. Section 4 concludes.

2 LITERATURE REVIEW

The strongest evidence for the impacts of savings groups comes from three randomised evaluations covering five countries. In Burundi, Bundervoet, Annan and Armstrong (2011) find that there were large increases in education spending across the board, but significantly larger increases for those who were savings group members. For Ghana,

[1]Banking on Change is a partnership between Plan UK, CARE International UK and Barclays, which from 2009 to 2012 helped over 513 000 people in 11 countries build their economic resilience through savings groups (Allan, Massu & Svarer, 2013); from 2013 to 2016, it intends to reach over 330 000 people, mostly young women and men, in seven countries.

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Malawi and Uganda, Karlan *et al*. (2012) find no significant increase in education expenditure attributable to savings groups. However, there was an increase in respondents reporting having used money from income generation activities for education expenditure in Uganda and in using loans from savings groups for education in both Ghana and Uganda.[2] In Ghana, there was a significant increase in primary school enrolment for both boys and girls and in secondary school enrolment for boys, attributable to the presence of savings groups.[3] In Mali, BARA and IPA (2013) find no significant impact on school enrolment or expenditure. For microfinance interventions more broadly, findings of rigorous studies are even more mixed, with some showing negative effects on education (Van Rooyen *et al*., 2012).

A number of less rigorous evaluation reports also cover educational impact. In Uganda, Swarts, Bukuluki, Mwangi and Wanyama (2010) find no difference in children's school attendance between savings group members and non-members. Dovi's (2008) study in Togo finds little sign of increased enrolments over time for savings group members. In Tanzania, Anyango *et al*. (2007) find that only 6 per cent of members thought that education ('for self or children') had improved since they had joined the programme. Studies using recall data and small samples in Uganda (Allen, 2005, 2009b) and Ethiopia (Allen & Bekele, 2008) find more positive reported changes in attendance for savings group participants than for non-participants. A similar study in Tanzania (Allen, 2009a) finds a positive change for boys only and a worsening in attendance for girls. In Ghana (JMK Consulting Ltd, 2012), Nepal (VARG & Mayoux, 2008) and Rwanda (CARE, 2012), participants explicitly attributed improvements in education to savings groups, although in each case, other reasons for the improvements were also given.

Turning from participation to expenditure, evaluations of the *Banking on Change* savings group programme in Egypt, Ghana, Kenya, Tanzania, Mozambique, Zambia and Vietnam (Triodos Facet, 2013) report an increase in the proportion of respondents incurring educational expenses in five of the seven countries, but it is not clear whether this is an indication of growing demand for education or increasing costs. The more detailed report on the evaluation in Ghana (JMK Consulting Ltd, 2012) notes, moreover, that although education spending increased across the board, there was no significant difference between member cohorts—those who had been members for 1 vs 2 years—controlling for background variables.

These findings have to be interpreted with caution: aside from the small samples and lack of a control group or baseline in most cases, many use flawed educational indicators, such as the number of children per household who are not attending because of a lack of money—an indicator that is sensitive to changes in the size of household and in the costs of education—and few use any kind of statistical significance testing.

The lack of clear educational impact in several cases may reflect the fact that loans are used for business or agricultural inputs much more than educational expenditure. BARA and IPA (2013) report that savings group members felt under pressure to use loans for income-generating activities, although they may have tacitly redirected the money towards consumption. However, in a number of cases, a substantial minority reported using loans for education (Barber, 2011, in South Africa; Boyle, 2009, in Burkina Faso; and VARG & Mayoux, 2008, in Nepal), and in one case (the Ugandan participants in Karlan *et al*.,

[2]Data on use of money from different sources for education expenditure were not available for Malawi because of a difference in questionnaire wording.
[3]However, this result lost its statistical significance when a different econometric method—difference-in-difference, as opposed to regression with a lagged variable—was used.

2012), education was the most common use of loans. Annual share-outs were also most often reportedly spent on business or income-generating activities but, in some cases, are also used for education (Garnier-Crussard, 2011, in Mali; and Karlan *et al*., 2012, in Uganda).

It may be argued that the main impact of savings groups on education is likely to be indirect and perhaps longer term than the time frame of most evaluations, operating via improvements in other aspects of people's lives. At least five such indirect mechanisms can be identified in theory: through income and livelihoods, child work, health and nutrition, changes in household decision-making and community action.

If *income and livelihoods* are raised through savings groups, then households should be able to invest more in education in the longer term. Bundervoet *et al*. (2011) find larger improvements for savings group members than for non-members in household assets and child well-being. Other studies do not find such clear evidence for economic improvements; for instance, Karlan *et al*. (2012) find no significant effects on the ability to mitigate economic shocks or on asset accumulation. A systematic review (Stewart *et al*., 2012) finds that combined microcredit and microsavings programmes increase income in some, but not all, cases.

Child work could either increase or decrease in response to economic opportunities resulting from savings groups. Bundervoet *et al*. (2011) examine this issue but are unable to draw strong conclusions. Among less rigorous evaluations, some (Okeyo, 2013, in Kenya; and Dovi, 2008, in Togo) find reductions in child work, but others (Boyle, 2009; Allen, 2009a, 2009b) find that the use of children's work is more common among savings group members than non-members. Although only suggestive, the latter findings are worrying in terms of their implications for child well-being and education and need to be addressed in further research.

Hunger and malnutrition, especially during early childhood, are associated with slower cognitive development, poorer learning outcomes, late school start and early dropout early; *poor health* during school years can also increase the risk of non-attendance or dropout (Alderman, Hoddinott & Kinsey, 2006; Buxton, 2011; Dercon & Krishan, 2009; Helmers & Patnam, 2010; Pridmore, 2007). Encouragingly, many evaluations find reported improvements in health or ability to access health care (Triodos Facet, 2013; Okeyo, 2013; VARG & Mayoux, 2008), or in food availability, food security or nutrition (Allen, 2009a, 2009b; Allen & Bekele, 2008; Dovi, 2008, CARE, 2012). The BARA and IPA (2013) study in Mali finds no significant change in how households dealt with health expenditures but finds significant improvements in a measure of food security, suggesting that the savings group helped to smooth consumption during lean periods. Several rigorous studies of microfinance, more broadly in Africa, also report positive effects on health, food security and nutrition (Van Rooyen *et al*., 2012), although other randomised studies of savings groups do not (Bundervoet *et al*., 2011; Karlan *et al*., 2012).

Turning to possible effects on *household decision-making*, it should be noted that a large majority of savings group members are women.[4] Past research has found that women tend to invest more of their income in children's education and health than do men (Ranis *et al*., 2000) and that female ownership of assets, such as land and livestock, is correlated with better child nutrition and education outcomes (CPC, 2011). The Karlan

[4]According to the Savings Groups Information Exchange (.), 82 per cent of the members in Africa, 80 per cent of members in East Asia and the Pacific, and 96 per cent of members in Eastern Europe and Central Asia are women.

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et al. (2012) study finds that women in treatment areas had significantly more influence over household decisions, including education expenditure decisions, in Malawi. BARA and IPA (2013) do not find any such shift in decision-making power in Mali. Several other studies report increases in various measures of women's economic empowerment among savings group members (Abebe & Selassie, 2009; Allen, 2009b; Boyle, 2009; CARE, 2012; Deininger & Liu, 2012; VARG & Mayoux, 2008). Whether all of these studies really measure empowerment rather than an increase in the burden of work for women is debatable (Maclean, 2012). Nevertheless, the shift in economic decision-making may result in positive longer-term impacts on educational expenditure and other investments in children.

Finally, cases of *community action* have been reported in the literature: savings groups being used on a group-wide or community-wide basis to invest in education. For instance, savings groups have pooled resources to start a nursery in Uganda (Allen & Panetta, 2010); campaigned on social issues including child labour, child marriage and girls' education in Nepal (VARG & Mayoux, 2008); and paid costs for birth certificates—important for sitting exams—in Mali (Edwards, 2010). Building social cohesion, in fact, may be the most valued aspect of savings groups in some contexts (BARA & IPA, 2013).

Which households benefit most from positive impacts of savings groups? Many of the evaluations are troublingly unconcerned with issues of distribution and equity. Karlan *et al*. (2012) and BARA and IPA (2013) note that households that join savings groups are on average wealthier than those that do not. Within the groups, it is also possible that some households would benefit more than others, such as those with more profitable investment opportunities. Only BARA and IPA (2013) check for this, finding no effect of wealth on any of the programme impacts.

In summary, savings groups have a positive impact on educational expenditure at least in some contexts, while in other countries, any impact has been harder to find. There is suggestive evidence from one randomised study and several less rigorous studies for a positive effect on school enrolment. Although far from conclusive, the evidence is so far consistent with claims that savings-led microfinance carries lower risks of indebtedness than credit-led services and is better at improving the livelihoods of the poorest, leading to better outcomes for education. There is some evidence of using loans and share-outs to pay for education and for indirect effects that can be expected in the medium to longer term to have an impact on education. More sensitive measures of educational attainment may be needed in some African contexts, where gross enrolment rates may be high but with large numbers of overage children due to late enrolment and grade repetition.

3 A CASE STUDY OF TWO VILLAGES IN GHANA

The range of impacts of savings groups found in the literature review highlight the need for research that can help in understanding the underlying processes: how are savings groups functioning in reality and how do they interact with households' livelihood strategies and social, economic and political contexts to influence—or fail to influence—educational investments, decisions and outcomes? Primary research in Ghana attempted to address these questions and to develop a model for small-scale qualitative research on educational impacts of savings groups. This research should not be seen as an impact evaluation or as a representative study of the Banking on Change project in Ghana, but rather as a complement to such studies in advancing knowledge about mechanisms and context.

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The study, conducted in February/March 2013, focused on one community in the Upper West Region and one in the Central Region, regions chosen for their diversity in terms of socio-economic and educational indicators. The Upper West Region is among the poorest regions in Ghana, while the population of the Central Region is around the middle of the national wealth distribution (DHS, 2009). In the Upper West Region, only 54 per cent of 15- to 24-year-olds had completed primary school in 2008, compared with 82 per cent in the Central Region. Whereas the Central Region community was relatively well connected to the urban economy and with greater diversification of livelihoods, the community in the Upper West Region was more cut off from the city, and households relied on a mixture of subsistence farming and small businesses.

We interviewed 52 adult savings group members in total, 27 adult non-members, 24 children, 8 teachers and 2 community volunteers (those trained to establish and support savings groups). Most of the adult interviewees were female, reflecting the membership of the savings groups.

Participants reported a declining ability to live off the land, change in timing of the rainy season and pressure to cultivate crops during the dry season. Livelihood strategies consisted of growing a mixture of food to eat, food to store and food to sell to meet cash expenses. Among those reliant on subsistence farming, their main need for cash was for education, healthcare and funerals. Some were unable to grow enough food consistently and so had to buy some during difficult periods. A sudden unexpected need for money sometimes caused members of this community to sell food that they had in storage, knowing that they would need to buy the same food again later, at a loss, when they could find the cash by growing and selling other crops. Moreover, there were cases of severe need, including some who migrated in search of work because of a chronic shortfall of food or cash.

Children often worked, whether or not they also went to school. In the Upper West Region, some (usually boys) had their own farm gardens, and some girls may have been engaging in transactional sex because they were not financially supported by their parents. Some families relied heavily on youth, especially male youth, leaving school to farm.

Having one or two educated family members who could obtain salaried jobs in the city was one of the main ways that families hoped to secure their livelihoods in the future, given that their farms were becoming less productive and yet they had increasing need of cash to pay for school fees, food bought at the market and items such as health insurance. Although participants talked about aspiring towards salaried jobs for girls and boys, the examples they gave of young people who had found such employment were usually male. This could reflect worse opportunities for young women in urban labour markets. Educated people would, it was hoped, create opportunities for other members of the community. For example, a man who had completed his university degree and worked in a government department had helped other members of the community to benefit from a government employment programme.

Competing demands between the aspiration to be educated and find salaried employment and a more immediate need for agricultural labour are, of course, a familiar picture in many poor rural areas in developing countries. The tension is compounded by the fact that becoming educated to senior secondary level is necessary but not sufficient to obtain salaried work in the city and incurs substantial costs. Education is officially free at primary and junior secondary levels in Ghana, but government schools were in practice charging small fees, totalling around US$6–9 per year at the primary level and around US$15 at the junior secondary level. Adding uniforms and books roughly doubled the total expense.

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At the senior secondary level, fees became much higher, and accommodation was also needed because children had to live away from home. Final exam results were withheld from children who failed to pay fees.

A few children were not in school during the study visits, for reasons including taking care of younger siblings; being asked to repeat a year and not wanting to go back; missing an exam because of non-payment of exam fees and not wanting to repeat the year; and going to work in mines, usually without their parents' knowledge. But erratic attendance; being sent home from school because of late payment of fees before eventually returning; and repetition of grades appeared to be more common problems than dropping out altogether. Children in primary grade 6, for example, ranged in age from 10 to 20. One reason was that children were held back until deemed ready for the exam. Consequently, although most children were attending school, they had in many cases not completed junior secondary school by the time they reached 18 years.

3.1 The Savings Groups

The two communities studied here both had savings groups initiated as part of Banking on Change by Plan Ghana and its partner organisations. The oldest groups were in their third annual cycle, and they were maintained by the communities themselves with help from a community volunteer trained by the partner organisations. The community volunteers worked with a number of groups in different villages, advising them where necessary, although the groups themselves made decisions such as minimum and maximum weekly savings amounts and which types of loan to prioritise. Members saved between GHS1 and GHS5 (US$0.50–2.50) per week in the Upper West Region community and between GHS2 and GHS10 (US$1–5) per week in the Central Region community. They could take loans up to three times their savings, repaying within 3 months. The savings groups, according to participants, became more useful over time, as they built up more funds and could give larger loans, and initial mistrust in the community had been overcome. In both communities, though, some people did not join the savings group because they did not think they could raise the weekly savings. Others did not have time to attend the weekly meetings, were already members of other informal savings groups or moved frequently between different locations. Thus, some of the most vulnerable—the poorest, the elderly and circular migrants—were not using savings groups, as well as some of the wealthiest, who preferred to use formal banks in the city.

Several participants said they had used loans for educational expenses. Many said that others also took loans to pay school fees or for uniforms. Indeed, many talked about the savings groups as if their main purpose was payment of school fees. Within these groups, payment of educational expenses was a legitimate and encouraged rationale that could be given for taking a loan. Some groups had constitutions explicitly listing education as a priority area in which loans would be granted.

Some participants said that they had little trouble in paying school fees, which for the most part came around at predictable times of the year. For others, however—perhaps those who were less familiar with the school system or who did not have enough to put some money or crops aside—educational expenses were unpredictable and a source of uncertainty, and they appreciated the relative ease with which they could take a loan from the savings group.

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> There is a time when you have to pay school fees. When I get the produce from the farm, I keep some and sell it later, so that when the children's fees are to be paid I sell that and use the money to pay for their fees. (adult member, male, Upper West Region)

> The children are asked to pay exams fee this week, 4 cedis [US$2] each. If you cultivate the crops and the rains fail. Now 4 cedis each. What and what am I going to sell this month to get the money for them? And they have to pay the money before they write exams. When your children are in junior high school you have to pay 6 cedis and if you have about 3 children in junior high school how are you going to pay all the money? (adult member, female, Upper West Region)

> The savings group is helping. It is helping a lot. Like I was saying when one of our children is going to school and you go and borrow money from the savings group a loan is helpful. You know that somebody has money and you trust the person but when you go to the person to give you a loan they will not give you. As you are aware some of us have and some also do not have [money]. You tell them everything about what you are going through but they will not give you the money. But as for the savings groups, like we are sitting now, if you tell them you need some money and they ask you what for you are able to tell them what you need the money for. You will be given the money. (adult member, female, Upper West Region)

Children, particularly the out-of-school teenagers interviewed in the Upper West Region community, reported previously having been at least partly responsible for their own educational expenses and said that, since the savings groups had started, they could now ask their parents for money instead.

As well as loans, participants in some cases used savings group share-outs to pay school fees, especially at the secondary level. But they mentioned share-outs much less frequently than loans as the advantage of the savings group for education. However, this may have reflected the concentration of children at primary and junior secondary schools in the study sites. The loans taken were generally small amounts—usually much smaller than the maximum amount of three times the savings balance. These amounts were a better fit for the relatively small expenses associated with basic education, while share-outs were used for larger expenses, such as house renovations or major business investments, or sometimes reinvested to save more.

3.2 Evidence for an Impact on Education

Did the use of savings groups actually lead to improvements in educational outcomes? The short timescale of the present study and potential for bias in participants' accounts mean that these results cannot be taken as an impact assessment. However, according to several accounts, more children were going to school than previously, and fewer were being sent home because of non-payment of fees or to work on farms. A primary school teacher interviewed in the Upper West Region said that there had been a dramatic improvement in the junior secondary school exam pass rate, which had previously been poor but in 2012 was 100%. He did not know if this was due to changes in the students, their parents or the teachers. As already noted, schools tended to hold back students not considered capable of passing, and the strictness with which they did this may explain the changes in pass rate more than any objective change in learning conditions. A junior secondary school teacher said that previously, children would not come to school because of money

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but that absenteeism had reduced since the savings group started. Day nursery teachers reported children were healthier, cleaner and more smartly dressed.

In the Central Region community, the savings group had also, according to participants, spearheaded a shift away from the government school, seen by some as poor quality, and into a private school:

> *Has the savings group made things possible in relation to education that wouldn't have been possible otherwise?*
> Yes it has helped children's education. First they all went to government school but now I have taken some of them to private school where I can pay. They don't teach them well in the public schools. (adult member, Central Region)

While seen in a positive light by the participants who had moved their children to private schools, there are some evident risks in terms of inequality and exclusion of the poorest; savings groups appeared to be helping slightly better off families to gain an educational advantage over those whose incomes were not sufficient to make regular savings.

The discourse presented by parents in this study often stressed the ease of taking loans to pay school fees and downplayed the fact that it would have to be repaid eventually or any difficulty in repaying. On the one hand, the groups were both providing additional income at the end of the year and encouraging small businesses that could result in longer-term income growth. On the other hand, some people had to rely on labour-intensive and not very productive or sustainable activities, such as charcoal burning, to repay loans in time; loans did not exempt them from this kind of activity but merely gave them more time in which to do it.

The savings groups, still being only in their second or third cycles, had not yet built up funds on the scale that some participants felt was needed for higher levels of education.

> (M) In terms of education, if [it is] not [a] small amount of money, the money from the savings cannot pay when the children go higher [in school], considering what you are saving. Some of them when their fees come it is more than five times what you have saved. Money from the [savings group] 'small box' (*dagibile*) cannot pay for these fees. So the savings help to pay for when there are small problems.
> (N) In Kaleo [a market town near the regional capital] a lot of people are engaged in businesses and at the end of the year people were able to get about 1,500 to 2,000 Ghana cedis [US$750–1,000] from the share out.
> (M) Because there is no work (business) here people save with poverty.[5]
> (M, member, and N, non-member, both female adults, Upper West Region)

Arguably, this should not be seen as a criticism of savings groups but simply reflects their long-term and sustainability oriented nature; they cannot in themselves generate profits beyond those generated by local business activities. This may mean that a timescale of several years is needed for the full educational and other impacts to be seen.

3.3 Indirect Channels

As noted earlier, there are several indirect channels through which savings groups could have an impact in the medium to longer terms on education: through income and

[5] *Sic*, apparently meaning saving in a poor way as a result of being poor.

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livelihoods, health and nutrition, child labour and decision-making. Several participants attested explicitly to the first of these, saying that they could now pay for educational expenses more easily, not because of using loans to pay for education expenses but because their overall incomes had increased following participation in the savings groups. Share-outs and loans could be used to invest in fertilisers, hire labourers or hire a tractor for farms, reportedly resulting in large increases in productivity.

> I use it to hire labour on my farm which increases my productivity. I now spend more on my farm. I can now also cater for my children's educational expenses. (adult member, Central Region)

> The share-outs have helped me in transforming my business as a miller. Proceeds from this have been used to buy an electronic motor that has helped in my work since I no longer have to buy diesel or use manpower. Now I use electricity without buying diesel, which used to cost a lot.
> *Has this made things possible in relation to education that wouldn't have been possible otherwise?*
> Yes because I've been able to save part of the money to send my son to a private school. (adult member, Central Region)

As well as this role in promoting new livelihood opportunities, the savings groups were also attributed with a more protective role among the most vulnerable. They kept people in the local community and reduced the need to travel for work, which could disrupt children's education, during the dry season. Participants reported using loans to cover medical expenses and, in the Upper West Region community, said that hunger had reduced as a result of being able to take loans from the savings group.

Children in the communities continued to work, looking after siblings, helping with household work, helping parents or other relatives on their farms or working as a labourer on someone else's farm. Work on farms tends to be mainly carried out by older children (aged around 11 or older), but household work, such as looking after siblings, is carried out even by quite young children. School hours in these communities left children free during the afternoon to work if they needed to, but it is still possible that, where a household needed more income, they would have to stop school altogether to work. Teachers told us that many children disappeared from the classroom during the rainy season, when more labour was needed, and did not report any change in this absenteeism since the savings groups started. We were not able to determine with confidence whether child work had increased or decreased as a result of the savings groups. According to school-going children, the savings groups had not eliminated the need for them to work occasionally, including to buy sandals and other items needed for school, and some combined school with a heavy burden of labour.

Children's fathers or other senior male household members were usually said to be responsible for expenditure decisions. However, probing revealed that some children would go to their mothers for school-related expenses in the first instance, and only if they did not have the cash would they turn to their fathers. Judging by some participants' accounts, savings groups may have placed more income in the hands of women, increasing their *de facto* decision-making power even where their husbands were still formally in charge:

> We the women now have the financial power and we can meet our monetary needs. (adult non-member, female, Central Region)

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Children themselves were sometimes responsible for their own school expenses, asking siblings, parents or other relatives if they did not have the money themselves. But children reported being more able to turn to their mothers for money since the savings groups had started.

There was also evidence of changes in spending patterns: savings group members reported being careful to earn and keep enough cash to save some each week and, in turn, linked this to paying for education. A 16-year-old girl in one of the children's discussion groups said that some parents previously used their money to drink *pito* (millet beer) but now preferred to save it. A savings group member said that she was more serious about selling produce to make sure there was enough money and that she now saved the small amounts she would previously have spent on unnecessary things:

> Whenever I am spending money, I think of the savings group first which I will have to meet before any other expenses. (adult member, Central Region)

4 DISCUSSION AND CONCLUSIONS

Taken together, the results of the literature review and qualitative research in Ghana suggest that savings groups may be quite diverse in their effects on education. There are several cases where education is among the major reasons given for taking loans, although in most cases, business is the main reason. In Ghana, the Banking on Change savings groups had explicitly decided to allow and, in some cases, prioritise loans for education. There are also several cases from the literature review and in the Ghana study of using savings group share-outs to cover educational expenses.

Harder to substantiate is whether educational expenditure actually increases as a result of the savings groups. It is possible that education is given as a reason for taking loans, but funds are in fact channelled elsewhere, or—as discussed in the succeeding paragraphs—the loans are used for consumption smoothing in relation to education, rather than absolute increases in education spending. A number of evaluations have found increased education expenditure, although several of these lack a control group against which comparison could be made, and, in some cases, savings groups were combined with other interventions likely to affect education, such as literacy training. However, Bundervoet *et al*. (2011) find increases in education spending that are higher for savings group members than non-members in Burundi.

The primary research in Ghana found that, in one of the study sites, people were using increased income and loans to send more children to private schools. In the other study site in Ghana, we found few children who had progressed beyond junior secondary school, no private schools and little private tuition; it is therefore not surprising that there was not much variation in expenditure. While acknowledging that moving children to private schools represents a positive response by parents to poorly functioning or absent public schools, it also represents a threat to equity (Akaguri, 2013). Savings groups combined with poor state provision may be accelerating the growth of disparities between the near poor, who are able to diversify their incomes and invest more in education, and the extreme poor, who are left behind.

Some studies report an improvement in education outcomes, usually measured in terms of enrolment or attendance. The mechanisms remain difficult to pin down, but the research in Ghana suggests that they could involve a combination of overall, gradual improvement in income, especially from small businesses operated by women, and better

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ability to pay fees on time, resulting in children being sent home from school more rarely. In the literature review, an effect of savings groups on overall income or livelihoods was difficult to discern; this may be because savings groups emphasise consumption smoothing and protection against shocks rather than increases in total income. It may also be that the savings groups examined in the literature are not yet fully mature, and new income-generating activities do not immediately result in large increases in income.

There is evidence in some studies of savings groups affecting health, nutrition, child labour and decision-making, in ways that are likely to affect education in turn, in the medium to long terms. In some contexts, loans or share-outs are used for food and healthcare expenses, and there is evidence from several studies of health and nutrition impacts, although not from the most rigorous studies. Savings groups appear to shift expenditure decisions towards female household members, which may increase expenditure on children. There are studies suggesting both decreases and increases in child work associated with savings groups, although among the most rigorous studies, only one looks at this issue and is unable to find a significant effect.

There is a need for caution about overselling savings groups, both in international debates and at the level of the villages where they are being introduced. The evidence base is still sparse but expanding with longer-term, larger-scale and better-designed evaluations underway. There is no evidence to suggest savings groups are harmful—with the possible exception that they appear to foster changes in livelihood strategies that may increase the incidence of child work in some cases—and they may fulfil a modest but important role in helping households to smooth consumption. But they are not a cheap substitute for more costly interventions that may be needed to ensure that children's rights, including free access to a quality education, are fulfilled. Despite hopes that savings groups would reach the poorest better than other forms of microfinance, other measures are needed especially for the worst off, such as those whose very low and infrequent incomes preclude them from joining or who frequently migrate for work.

Despite this paper's focus on one specific form of microfinance and the relatively small number of studies, there appear to be wide variations between contexts in the impacts of savings groups. Why is this? For education, it is likely to matter whether education expenditure is seen—by implementing organisations and savings group members—as a valid use of savings group loans. As Bauchet *et al.* (2011) point out, microfinance has generally been linked to enterprise development. It may be useful for education advocates to engage more with microfinance programming to promote education as a longer-term investment. That said, education will not usually provide the short-term returns that would help to minimise the risk of non-repayment of loans.

We propose that substantial direct education effects are likely to be seen under a rather specific set of circumstances: when there are costs to education that cash-constrained households have difficulty in meeting, even though they are small in absolute terms; groups allow the use of loans for education; and households' income sources are such that they are able to repay educational loans. The latter condition is needed for households to avoid problematic levels of debt and for groups to be financially sustainable. Indirect effects on education are likely to be more common. They could arise in particular either through livelihoods promotion—when there are business opportunities that households could not previously take up because of cash constraints—or through livelihood protection—providing insurance against shocks so that they do not have to rely on coping mechanisms that are damaging in the long term. These remain as hypotheses for future research to explore.

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New research on savings groups and microfinance in general needs to use better education indicators than is sometimes currently the case. Grade attainment, and ideally, tests of actual learning outcomes, are better measures than enrolment rates in places where most children are enrolled, but many are overage, repeating grades and unlikely to attain the qualifications for further education or formal work that they aspire towards. The effects in the short to medium terms may be drowned out by broader trends, such as an expansion of the school supply.

Savings groups hold potential to improve educational outcomes, but the effects may often be at the margins: the households that are not quite able to afford fees or school uniforms every time they are needed and the children who do not drop out altogether but whose education is cumulatively affected by time out of school. Further research on this topic needs to be sensitive and rigorous enough to account for wider social and economic changes and needs to acknowledge that impacts may be indirect, through channels such as income, health and decision-making, and observable only over the medium or long term.

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