

## Review article

# Combined structural interventions for gender equality and livelihood security: a critical review of the evidence from southern and eastern Africa and the implications for young people

Andrew Gibbs<sup>§</sup>, Samantha Willan, Alison Misselhorn and Jaqualine Mangoma

<sup>§</sup>**Corresponding author:** Andrew Gibbs, Health Economics and HIV/AIDS Research Division (HEARD), University of KwaZulu-Natal, Durban, South Africa, 4001. Tel: +27(0)31 260 7737. (gibbs@ukzn.ac.za)

### Abstract

**Introduction:** Young people in southern and eastern Africa remain disproportionately vulnerable to HIV with gender inequalities and livelihood insecurities being key drivers of this. Behavioural HIV prevention interventions have had weak outcomes and a new generation of structural interventions have emerged seeking to challenge the wider drivers of the HIV epidemic, including gender inequalities and livelihood insecurities.

**Methods:** We searched key academic data bases to identify interventions that simultaneously sought to strengthen people's livelihoods and transform gender relationships that had been evaluated in southern and eastern Africa. Our initial search identified 468 articles. We manually reviewed these and identified nine interventions that met our criteria for inclusion.

**Results:** We clustered the nine interventions into three groups: microfinance and gender empowerment interventions; supporting greater participation of women and girls in primary and secondary education; and gender empowerment and financial literacy interventions. We summarise the strengths and limitations of these interventions, with a particular focus on what lessons may be learnt for young people (18–24).

**Conclusions:** Our review identified three major lessons for structural interventions that sought to transform gender relationships and strengthen livelihoods: 1) interventions have a narrow conceptualisation of livelihoods, 2) there is limited involvement of men and boys in such interventions, 3) studies have typically been done in stable populations. We discuss what this means for future interventions that target young people through these methods.

**Keywords:** gender; livelihoods; HIV; prevention; intervention; southern Africa; eastern Africa.

**Received** 21 December 2011; **Revised** 21 March 2012; **Accepted** 29 April 2012; **Published** 14 June 2012

**Copyright:** © 2012 Gibbs A et al; licensee International AIDS Society. This is an open access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by-nc/3.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

### Introduction

Young people remain at risk of HIV infection. Globally it is estimated that young people (15 to 24) account for 41% of all new HIV infections in people over 15 [1]. Of this 52% of infections among young people occur in southern and eastern Africa [1]. Since the 1990s gender inequalities have been identified as a fundamental driver of HIV, yet in 2008 in sub-Saharan Africa women comprised 61% of all those living with HIV and 60% of new infections, and young women (15 to 24) were 2.5 to 4.5 times more likely to be infected with HIV than young men [2,3]. Men in turn become infected with HIV approximately 10 years later [3]. The epidemic is also increasingly recognized as an urban phenomenon, with a range of factors including high youth mobility, economic instability, gender inequalities and poor services combining to shape this [4–6]. Recent work suggests that in southern and eastern Africa 28% of people living with HIV/AIDS live in 14 cities, approximately 15% of the global epidemic [5].

Despite significant investment in behavioural HIV prevention interventions, the outcomes of these have at best been limited [7–9]. Padian and colleagues' review of HIV

prevention randomized control trials (RCTs) in 2010 identified six RCTs that had shown an impact on HIV outcomes. All of these were biomedical interventions [10]. Similar reviews of interventions targeting young people suggest that although these have impacts on HIV-related outcomes such as condom use, they have little long-term impact [11–13].

One of the strongest critiques emerging of behavioural HIV prevention interventions is that they fail because they focus on changing individual people's behaviours without recognizing and tackling the structural contexts which shape and limit people's agency and therefore ability to act in new ways [8,9,14–17]. This critique is not new, Tawil et al. [14] and Waldo and Coates [15] recognized this in the 1990s. However, only recently has this critique emerged in policy circles as an influential argument. Specifically, the WHO's Commission on the Social Determinants of Health [18] emphasized the role of "up-stream" factors in shaping poor health. Similarly, the "social drivers group" of AIDS 2031, a global "think tank," explicitly sought to understand the role of structural factors in HIV and how best to address them [17,19].

In southern Africa two critical structural drivers of HIV for young people are gender inequalities [16,20] and livelihood insecurity [11,21,22], and specifically how these two factors intersect [8,19,23]. Interventions are increasingly seeking to modify these structural factors as a pathway towards HIV prevention [17,19,24]. In this paper we review evaluated interventions that have combined livelihood strengthening and gender transformative interventions for HIV prevention. We reflect on their strengths and limitations with a specific focus in relation to young people, primarily those 18 to 24 given their movement from lower HIV vulnerability to higher HIV vulnerability [1]. This work was an early step towards developing a new intervention for HIV prevention in urban informal settlements in South Africa with people aged 18 to 24. This work is in collaboration with the Medical Research Council (South Africa) and Project Empower (a small gender and HIV NGO, with 10 years of experience in this field). We reflect on the lessons of the review for our work at the end of the paper.

#### **Gender inequality, livelihood insecurity and young people**

Gender can be understood as a social structure that men and women are highly invested in and reproduce in their everyday interactions [25]. Gender proscribes certain behaviours for men and women and also structures access to resources; typically men benefit compared to women, but not all men benefit to the same degree and some women may also gain from these relationships [25,26]. Heterosexuality is closely intertwined with gender, and gender hierarchies are often informed by and inform heterosexual behaviours [25]. In this way forms of gender inequalities such as violence against women, gender norms and expectations also create forms of inequality around how men and women experience sex and in turn create contexts that increase women's and men's vulnerability to HIV [8,27].

Livelihoods for young people in southern and eastern Africa are in flux. Increasing livelihood insecurity is driven by factors including climate change, urbanization and migration, HIV/AIDS, and a changing economy that is moving towards less labour-intensive processes [6,28–32]. Across Africa young people are disproportionately unemployed and not receiving any financial income from work [33]. We draw on a livelihoods framework to emphasize the multiple components that shape how young people secure a living [34]. The livelihoods framework recognizes that people construct a living through drawing on various forms of capital, often identified as: financial capital, human capital, social capital, natural capital and physical capital [35–38]. The livelihoods framework also recognizes how institutions, political relationships and contexts shape access to forms of capital and how forms of capital shape livelihood strategies [39]. Criticisms of livelihood approaches have included their limited engagement with power and politics [34], their household level of analysis – in particularly assuming a harmonious rather than conflictual household relationships [40] – and their failure to engage with broader questions of globalization and economic change [34].

In southern and eastern Africa there is a significant body of work that maps out how livelihood insecurity and gender inequalities intersect to create vulnerability to HIV. For women, their lack of economic resources intersects with the social relationship of gender inequality, undermining women's ability to negotiate condom use with male partners [4,41] and keeping women, among other reasons, in abusive relationships [42]. More widely, research in southern and eastern Africa on "poverty-driven" and "transactional" sex also suggests how gender inequalities intersect with livelihood insecurity creating contexts in which women secure social and economic resources through sexual exchange [4,8,43]. Such literature recognizes the spaces women have to assert agency, but also recognizes how this increases women's vulnerability to HIV [8,27]. Broadly, women's vulnerability to HIV is linked closely to women's lack of livelihood strategies and inability to secure their own income.

Research on the intersection between livelihood insecurity, masculinities and HIV is less developed [9]. Nonetheless, studies from southern and eastern Africa suggest that as men's livelihood strategies collapse, particularly wage labour, men struggle to achieve social demonstrations of their masculinity (often termed "hegemonic" masculinities) [4,8]. It is suggested that men respond to this inability to achieve hegemonic masculinities by trying to assert further control over women, through violence [44] or seeking to control women's sexuality, or through seeking additional sexual partners as a way of "securing" their masculinity [4] all factors linked to high levels of HIV transmission.

The inter-linkages between gender inequalities and livelihood insecurity that create HIV risk and vulnerability may differ for men and women. However, the argument is that lack of economic resources undermines men's and women's ability to transform or exit harmful gender relationships that increase HIV vulnerability. We now turn to look at interventions that have sought to intervene in these relationships.

#### **Combined structural interventions for livelihood security and gender equality**

Structural interventions attempt to intervene in the wider factors that shape people's behaviour, but that cannot be controlled easily by individuals be these economic, political or social factors [17,19]. This approach builds on sociological theory that argues human behaviour is not simply rational volition, which can be reshaped by providing knowledge and information, but rather is shaped by structures that constrain what appropriate and achievable behaviours are [17,41]. Interventions that recognize this and seek to reshape these structures are broadly termed structural interventions. Auerbach et al. [17] provide a framework to categorize structural interventions into six types: (1) policy-legal changes, (2) environmental enablers, (3) shifting harmful social norms, (4) catalysing social and political change, (5) empowerment of communities and groups, and (6) economic empowerment interventions.

In this paper, given the evidence that links gender inequalities and livelihood insecurities to HIV in southern and eastern Africa, we focus exclusively on HIV prevention interventions

that combined economic empowerment interventions with gender transformative interventions [7,17,19,23]. As noted above, the assumption underpinning these interventions is that men and women require a certain level of economic autonomy to enable them to act in more gender equitable ways [8,17]. We review interventions in the light of our focus on young people given their vulnerability to HIV.

## Methods

A review of published articles and reports was conducted using Web of Knowledge/Science, PubMed, International Bibliography of Social Science (IBSS) and Google Scholar to identify interventions that had been conducted and evaluated. We did an initial search for interventions using the combination of terms: HIV AND gender AND (structural OR intervention). We did an initial sorting based on article titles excluding on the basis of region of interest (whether outside of Africa) and whether or not it evaluated an intervention. This initial search identified 468 separate articles. We then manually reviewed the abstracts of these articles using the following criteria; if abstracts were unclear we reviewed the full text. To be included in the review interventions had to:

1. Have been evaluated using experimental or quasi-experimental models, with at least one outcome measure linked to HIV: gender-based violence, HIV or HSV-2, condom use and gender equality measures;
2. Have been conducted in eastern or southern Africa as defined by UNAIDS Regional Support Team for Eastern and Southern Africa, namely: Angola, Botswana, Comoros, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe;
3. Combine a gender transformative intervention and a livelihood strengthening intervention. As such, well-known interventions such as Stepping Stones [45] were excluded as they only included a gender transformative intervention;

This sorting led to us to identify nine discrete interventions that met our criteria for inclusion in this review. While interventions varied we split them into three categories:

1. Microfinance and gender empowerment interventions
2. Supporting greater participation of women and girls in primary and secondary education
3. Gender empowerment and financial literacy interventions

We manually extracted the data on intervention design, sample size, length of follow-up and HIV-related outcomes for all nine interventions. This data is presented in Table 1. We did not conduct a meta-analysis of outcomes for two reasons. The first was the limited number of interventions. The second reason was we were more concerned about how interventions were framed, who they targeted and the approaches they took.

## Results

### Microfinance and gender empowerment interventions

Microfinance and gender empowerment interventions target women by combining microloans (sometimes microgrants) with business skills training and gender transformative training. They are premised on the assumption that lack of financial capital is a critical barrier to transforming gender relationships [46]. The format and structure can vary significantly. The IMAGE (Intervention with Micro Finance for AIDS and Gender Equity) Project in South Africa for instance had more than 1-year of training and community mobilization [47], while in Kenya a programme working with sex workers added microfinance onto an on-going peer education programme [48]. In contrast the Shaping the Health of Adolescent Girls in Zimbabwe (SHAZ!) programme Phase II trial used vocational training, supplemented by microgrants, which do not have to be repaid, instead of microfinance [49].

The microfinance programmes outlined show mixed results in relation to HIV outcomes. The IMAGE project saw an impressive 55% reduction in violence against women amongst participants [47] and was also highly cost-effective [50], and the microfinance for sex workers programme saw a significant proportion exiting sex work [51]. In SHAZ! Phase I the impacts were limited [49], while in Phase II a greater impact was seen but not significant compared to the control group. In IMAGE there were a number of flat outcomes, in particular HIV incidence at a community level [47].

We highlight two weaknesses around combined microfinance and gender empowerment interventions as structural interventions for young people. First, young women do quite poorly in these programmes as wider literature also shows [46]. Both the IMAGE Project and the Microenterprise services for sex worker intervention had participants with an average age of 42 and 41 years, respectively [47,51]. In a sub-analysis of the IMAGE Project, participants under 35 showed only limited positive changes around sexual behaviour [52]. In the two programmes reviewed, SHAZ! and TRY, that did target younger women, outcomes were less successful [49,53]. In general, microfinance programmes are most successful in supporting people with already existing small-scale businesses, rather than in enabling new businesses to emerge, hence older women typically benefit more [46]. Although combined micro-finance and gender transformative interventions have considerable success, it is amongst those least vulnerable to HIV and the applicability of this approach as a way to reduce HIV risk and vulnerability among young people may be limited.

Second, these programmes often failed to consider how they may reshape gender relations in the context of the wider community, because they are focused on small groups. Research suggests that young people are particularly affected by community norms [54]. Dworkin and Blakenship [46] in their global review of microfinance programmes suggest that some programmes have increased HIV risk and vulnerability for women, rather than decreasing it. SHAZ!'s Phase I study led to women engaging in new livelihood strategies that placed them at increased risk of sexual harassment and violence as they moved in new spaces [49]. Engaging

**Table 1. Combined structural interventions for gender equality and livelihood security in southern and eastern Africa.**

Intervention name (country)	Study type, duration, sample size	Target group	Livelihood component	Gender component	HIV-related outcomes
<b>Microfinance programmes</b>					
Microfinance for AIDS and Gender Equity (IMAGE) Project (South Africa) [47]	Cluster randomized trial, 3 years, 430 women	Poorest women in communities, identified via participatory wealth ranking, (average age 41)	Microfinance (individual borrowing and repayment of loans over 10 or 20 week cycles)	Participatory learning and action curriculum integrated into loan meetings (10 training sessions done within centre meetings every 2 weeks (approx. 6 months)) Community mobilization for 6 to 9 months following initial training	<p>Programme participants (all ages):</p> <ul style="list-style-type: none"> <li>● Experience of IPV reduced by 55%, greater levels of communication and more progressive views on gender [47]</li> <li>● Greater involvement in collective action and social groups [47]</li> </ul> <p>Programme participants (14 to 35):</p> <ul style="list-style-type: none"> <li>● Increase in access to VCT by 64% [52]</li> <li>● 24% decrease in unprotected last sex with non-spousal partner [52]</li> </ul> <p>14 to 35 year-old household co-residents:</p> <ul style="list-style-type: none"> <li>● 32% increase in communication with household members about sexual matters [47].</li> <li>● No difference in unprotected sex at last occurrence with non-spousal partner in past 12 months [47]</li> </ul> <p>Randomly selected community members:</p> <ul style="list-style-type: none"> <li>● 11% increase in condom use at last sex [47].</li> <li>● No impact on HIV incidence [47]</li> </ul>
Shaping the Health of Adolescent Girls in Zimbabwe (SHAZ!)	Pilot study (uncontrolled study, 50 women, 6 months) [49]	Adolescent girls, orphans (16 to 19)	Microcredit loans Business skills training Mentorship	Adaptation of Stepping Stones	Increase in HIV-related knowledge and relationship power, no significant change in current sexual activity or condom use at last sex [49] Increased relationship power [49] Increased HIV risk through new mobility and economic strategies [49]
	Phase II Study: Randomized control study, 24 months, 315 women [60]	Adolescent girls, orphans, average age 18	Financial literacy and vocational training Microgrants (did not have to be repaid) to support start up or further training	Adaptation of Stepping Stones, including expanded training including negotiation skills Integrated social support Access to HIV and reproductive health services	Decrease in food insecurity [60] Increase in equitable gender norms [60] Physical and sexual violence reduce by 58% over a 2-year period [60]

**Table 1 (Continued)**

Intervention name (country)	Study type, duration, sample size	Target group	Livelihood component	Gender component	HIV-related outcomes
Micro-enterprise services for sex workers (Kenya) [48]	1 year, pre-test, post-test with no control, 2 years (227)	Sex workers, all over 18	Modified microfinance scheme Business skills training and mentorship	On-going peer education	45% reported leaving sex work [48] Decline in mean number of sexual partners in past week (from 3.26 to 1.84) [48] No statistically significant change in self-reported weekly mean number of casual partners [48] Increase in condom use with regular partners [48] These results were highly age dependent – with older women reporting better outcomes [48]
Tap and Reposition Youth (TRY) (Kenya) [53]	Pre-test, post-test design, with matched comparison (222 pairs), length of participation ranged from <1 year ( $n = 71$ ), 1 to 2 years ( $n = 81$ ) and 2 to 3 years ( $n = 70$ )	Out of school adolescent girls and young women (16 to 22)	Modified microfinance scheme Business training and mentoring	Mentors given 5 days of training and then support group discussions, educational sessions on these topics	Marginal improvement in gender attitudes, but no improvement on reproductive health knowledge [53] Increased ability to insist on condom use (49.3% c.f. 61.7% $p < 0.01$ ) [53] 66% drop out rate from programme [53]
<b>Increasing girls' school attendance</b>					
Zomba Cash Transfer Program (Malawi) [56]	Randomized control trial, 18 months, 1289 young women	School-age young women (13 to 22)	Cash transfers, mix of conditional and non-conditional to school attendance (average amount US \$10)	Schooling	One-year follow-up: ● Reduced onset of sexual activity by 31.1% [73] 18-month follow-up: ● Intervention group had 64% reduction in HIV prevalence and 76% reduction in HSV-2 prevalence [56] ● Reduced age of partners in those in intervention [56] ● No significant differences between conditional and unconditional intervention group, although the study was not powered to show this [56]
Western Kenya Schooling Intervention [74]	Randomized control trial, 4 years, 70,000 school children	Primary school-age young men and women	Providing school uniforms	Schooling	15% decline in girls dropping out of school [74] 10% decline in girls having started child bearing [74] Boys 40% less likely to have married [74]

**Table 1 (Continued)**

<b>Intervention name (country)</b>	<b>Study type, duration, sample size</b>	<b>Target group</b>	<b>Livelihood component</b>	<b>Gender component</b>	<b>HIV-related outcomes</b>
Eastern Zimbabwe Schooling Intervention [75]	Randomized control trial, 2 years, 329 girls	Adolescent orphan girls, (10 to 16)	School support including fees, exercise books, uniforms. Helpers trained to provide support around absenteeism	Schooling	Control group has six times higher school dropout rate [75] Higher gender equity levels in intervention group [75]
SUUBI Research Programme (Uganda) [55]	Randomized control trial, 10 months, 277 participants	Adolescent orphans, male and female (average age 13.7)	Training on asset building and financial planning Mentorship Access to child savings account	Schooling	Attitudes towards sexual risk taking improved in male intervention group and remained constant in female intervention group [55]
<b>Gender training plus financial literacy</b>					
Siyakha Nentsha Programme (South Africa) [63]	4 years, quasi-experimental, control arm, 18 month follow-up	School-age boys and girls (14 to 16)	Financial training	Life skills and reproductive health training	Increased autonomy around financial decision making [63] Increased HIV/AIDS related knowledge [63] Young men had reduced onset of sexual activity and fewer partners [63]

with communities through interventions as the IMAGE project did, or developing wider community gender transformative and economic empowerment interventions, may be an appropriate way to overcome this.

#### **Increasing women's and girls' school attendance**

Supporting women's and girls' school attendance can be conceptualized as a gender equality and livelihood strengthening intervention; school attendance delays women getting married, improves their access to income through building human capital, increases young women's economic aspirations and success and, as recent reviews have shown, is an effective HIV prevention intervention [22].

Four interventions sought to encourage greater enrolment and retention of girls (and in two interventions boys as well) in schools, although the ways of achieving this vary from conditional and non-conditional cash transfers (Zomba Cash Transfer Programme), to reducing barriers to accessing education by providing free school uniforms (Western Kenya) and the provision of wider support such as counselling, uniforms and support to learners [55].

Two interventions have shown very promising results in terms of HIV-related outcomes. The Zomba Cash Transfer Program showed the intervention group at 18 months had a 64% reduction in HIV prevalence and 76% reduction in HSV-2 prevalence compared to the control group [56]. A similar study in Western Kenya showed intervention students were less likely to have had a child within 2 years and 14% less likely to at 4 years. There was also a 15% reduction in girls dropping out of schools [57]. All four evaluations reported positive trends including higher school attendance and stronger gender equality norms. These are impressive results with further studies looking at modified models of this approach.

Two concerns remain about structural interventions to support young women's school enrolment and attendance as a pathway to HIV prevention. First, these interventions are narrowly focused on school attendance and enrolment and do nothing to challenge the ways in which schools produce and reinforce gender inequalities [58]. Interventions therefore need to be linked to high-quality in-school life skills and gender transformative interventions such as Stepping Stones [45] and potentially wider whole school gender transformative interventions [58]. However, there remains scepticism as to whether schools are effective spaces for gender transformative interventions more widely [41,59].

Second, though these interventions are effective to retain young women in school and sometimes encourage re-enrolment, they have no impact on women who remain out of school or drop out during the intervention. As such they may be missing a significant proportion of young women who exit the education system whether through pregnancy or providing care for relatives. The difficulty of working with young people around HIV who are out of school has been highlighted in both the SHAZI and TRY interventions [49,60, 53], as well as a considerable body of work [61,62]. School retention interventions appear incredibly promising as a strategy, but cannot exclude interventions that target those young people who are not in school.

#### **Gender empowerment training plus livelihood training or financial literacy**

The final category of intervention links gender empowerment training with financial literacy training. These interventions are aimed primarily at developing young people's capacity and sense of agency to engage in productive livelihoods as well as providing participatory training on gender and HIV/AIDS [63]. Such interventions can be thought of as economic empowerment interventions as the aim to strengthen young people's control of their finances.

The Siyakha Nentsha Programme in KwaZulu-Natal, South Africa, links HIV and reproductive health training, with life skills training and financial education for girls and boys aged 14 to 16 [63]. The results of the full evaluation of the programme are not yet available, but preliminary results suggest a number of positive changes. This included young women reporting increased autonomy in how they spend their money and a wider sense of ability to take control of their own lives [63].

These types of approaches are not as resource intensive as microfinance programmes, to which they are very similar. Unlike microfinance programmes they do not require large initial financial inputs, rather they require experienced facilitation skills and approaches that support critical thinking and active learning [64,65] and work to support safe social spaces to enable young people to think and act in new ways. As such they may offer a productive approach towards working with young people, yet until results of Siyakha Nentsha and future studies come in, their applicability remains unknown.

#### **Discussion**

Despite variations in the reviewed combined livelihood strengthening and gender transformative interventions, we identify three "learning's" that cut across the nine interventions in relation to young people: [1] their narrow conceptualization of livelihoods, [2] their limited involvement of men and boys, [3] their focus on interventions in secure contexts. We discuss each of these in turn.

#### **Narrow conceptualizations of livelihoods**

The majority of interventions when explored from a livelihoods framework have a narrow focus on building participants' human capital and financial capital. In reality young people's livelihood strategies are constructed by drawing on multiple forms of capital [34]. Interventions targeting young people cannot narrowly focus on financial and human capital alone but need to expand to consider different forms of capital and how to build these as pathways to constructing securer livelihoods.

Furthermore, the livelihoods framework also makes explicit recognition of the variety of institutions that shape the potential for livelihood strategies to work. Institutions range from the state, through to global commodity chains that in various ways open and close particular livelihood strategies [34]. Few interventions reviewed expanded their work to include thinking about these institutions, nor seeking to transform these institutions, despite these being important in shaping livelihood strategies. Reframing current

interventions within this livelihoods framework shows some of the limits of their approaches and is critical for future interventions that seek to build more secure livelihoods for young people.

Apart from those directly targeting school enrolment interventions, interventions for young people may well need to include a significant focus on this, even if this is not their prime aim. If further studies continue to show the impact of schooling on young women for HIV this will need to be a critical component. Schooling as a combined livelihoods and gender transformative intervention may have a number of weaknesses, but offers a clear approach for younger people.

### **Involving men and boys**

The majority of interventions reviewed targeted women exclusively or only include men partially (6/9 interventions). As outlined earlier there is a body of theoretical and empirical evidence of the intersection between livelihoods and masculinities around HIV and the importance of involving men in HIV prevention interventions [4,44,66,67]. Yet this has not translated into involving men in combined structural interventions. The reasons for this lack of involvement lie in the history of work on HIV interventions, which correctly recognized women's vulnerability and prioritized working with women [9,19]. Now, however, involving men at a theoretical level enables gender to be seen more holistically as a relational concept in which women and men are invested and which to change requires that women and men change [25,66]. Such an approach, as adopted by interventions such as Stepping Stones, which works with women and men [45,67] may be productive for structural interventions more widely.

Including men and boys in combined interventions for economic empowerment and gender transformation raises a number of important questions. First, although there is evidence about the impact for HIV prevention of strengthening women's livelihoods [19,47], the pathways for masculinities, livelihoods and HIV are not as clearly mapped, nor are there studies of such interventions. A critical concern is whether building men's economic power would reinforce hegemonic forms of masculinity, reproducing rather than challenging HIV-related behaviours and vulnerabilities. As interventions are linked to a gender transformative intervention this should not be a significant concern, but this needs to be confirmed. A second question is whether young men and women will respond differently to interventions due to the social and economic contexts they occupy, and if so, what this means for combined interventions.

There is significant potential in involving men in combined structural interventions for gender equality and livelihood security. Further research needs to be undertaken to understand how men respond to these and ensure that involving men and boys supports, rather than hinders the work of gender equality.

### **Working in secure/insecure contexts**

The majority (6/9) of interventions reviewed in this study were conducted in relatively "secure" contexts, defined as rural areas or school populations. These populations are

relatively stable and accessible. While there is a significant burden of disease in these contexts, urban settings, especially for young people, are increasingly recognized as spaces where HIV incidence is high linked to high levels of mobility, poverty and poor access to health services [4,5]. With the different social, economic and political contexts of young people between rural and urban informal settlements, there may need to be modification of successful interventions to suit these areas.

This variation in context is partially seen in the less than successful outcomes of SHAZ! and TRY. Both interventions were in urban informal settlements with high levels of mobility and economic precariousness that undermined intervention success. In the case of SHAZ! this meant radically modifying the intervention design from a "traditional" microfinance approach in Phase I to a microgrants and vocational training approach in Phase II [49,60]. While TRY found it difficult to retain the highly mobile and vulnerable participants it was targeting [53].

It is understandable that interventions tend to be tested and researched in more stable populations, yet given the high levels of HIV burden in urban settings and the variation in contexts, adapting successful interventions to these settings is a critical next step. This will require working closely with organizations that have significant experience in operating in urban settings, in particular recruiting and retaining participants who are often highly mobile. All of these shape the nature of what successful structural interventions with young people are.

### **Conclusions**

Young people in southern and eastern Africa remain vulnerable to HIV despite significant investment in behavioural HIV prevention interventions. A new generation of HIV prevention interventions has purposefully moved away from narrowly targeting individual's knowledge and attitudes to recognizing how social contexts shape poor health and wellbeing, and attempting to modify these to enable behaviour change that leads to HIV prevention [17]. In southern and eastern Africa, where two key drivers of HIV are gender inequality and livelihood insecurity, a number of well-designed and rigorously evaluated interventions have been, or are being, conducted that have sought to modify these factors. We reviewed these interventions in order to understand them and their applicability to young people better.

This paper reviewed the current evidence on combined interventions for gender equality and livelihood strengthening it did not however review where current practice is at. NGOs continue to implement multiple approaches to this work, models such as CAMFED's business training and microfinance and includes peer support that may offer approaches to build on [68]. While further evaluations of interventions are underway of similar interventions including a regional study on "choice-disabled" men and women who are most at risk of HIV and combines a range of interventions, including a focus on increasing the skills and employability of women [69]. Another intervention currently underway uses conditional cash transfers to increase school attendance

amongst women and links it to community mobilization around men and masculinities [70].

More broadly it may be that current approaches to livelihood strengthening in conjunction with gender transformative interventions are not “up-stream” enough. By this it is meant that the broad economic constraints on men and women are linked into wider processes of global change, capitalism and state policies [71]. The interventions reviewed do nothing to challenge these wider issues, which underlie economic inequality. Yet, while challenging these broader processes is critical, such work will take a long time to achieve and at the same time, smaller structural interventions are required to ameliorate the worst impacts of these.

Our own work builds on the learning’s from this review. Specifically we are working with young men and women in urban informal settlements in South Africa, spaces with high HIV incidence [5,6]. Our intervention combines Stepping Stones (version 3), which has been successfully tested [45,67], with a newly created manual, Creating Futures [72]. Building on a livelihoods framework, Creating Futures seeks to get young people to critically think about how forms of capital and institutions shape livelihood strategies and to map out pathways towards progress.

#### Authors’ affiliation

Health Economics and HIV/AIDS Research Division (HEARD), University of KwaZulu-Natal, Durban, South Africa

#### Competing interests

All the authors are involved in an intervention that links Stepping Stones (version 3) with Creating Futures a livelihoods strengthening intervention.

#### Authors’ contributions

AG conceptualized the study, collected the data, wrote the first draft of the paper and revised it for submission. SW conceptualized the study and critically reviewed the paper. AM helped draft a portion of the manuscript and critically reviewed the paper. JM provided analysis and interpretation of the data and critically reviewed the paper. All authors approved the final manuscript.

#### Acknowledgements

Until 1 January 2011 this work was funded through a Joint Funding Agreement (JFA) for the Health Economics and HIV/AIDS Research Division (HEARD) of the University of KwaZulu-Natal, South Africa. The JFA is comprised of SIDA, Irish Aid, RNE and UNAIDS. From 1 January 2011 the work was funded through a grant to HEARD from SIDA alone. The funders had no role in the study design, data collection and analysis, decision to publish, or preparation of the manuscript.

We thank Lauren McNicol and Jenevieve Mannell who provided initial help in the study design and accessing data.

#### References

1. UNICEF. Opportunity in crisis: preventing HIV from early adolescence to young adulthood. New York: UNICEF; 2011.
2. Gouws E, Stanecki KA, Lyerla R, Ghys PD. The epidemiology of HIV infection among young people aged 15–24 years in southern Africa. *AIDS*. 2008;22(Suppl 4):S5–16.
3. UNAIDS. Global Report. Geneva: UNAIDS; 2010.
4. Hunter M. Love in the time of AIDS: inequality, gender, and rights in South Africa. Durban: University of KwaZulu-Natal Press; 2010.
5. van Renterghem H, Jackson H. AIDS and the city: intensifying the response to HIV and AIDS in urban areas in sub-Saharan Africa. Johannesburg: UNAIDS; 2009.
6. Thomas L, Vearey J, Mahlangu P. Making a difference to health in slums: an HIV and African perspective. *Lancet*. 2011;377:1571–2.
7. Campbell C, Cornish F. Towards a ‘fourth generation’ of approaches to HIV/AIDS management: creating contexts for effective community mobilization. *AIDS Care*. 2010;(Suppl. 2):1569–79.

8. Campbell C, Gibbs A. Poverty, AIDS and gender. In: Chant S, editor. *International handbook on poverty and gender*. Cheltenham: Edward Elgar; 2010. p. 327–32.
9. Phillips A, Pirkle C. Moving beyond behaviour: advancing HIV risk prevention epistemologies and interventions (A report on the state of the literature). *Global Public Health*. 2011;6:577–92.
10. Padian NS, McCoy SI, Balkus JE, Wasserheit JN. Weighing the gold in the gold standard: challenges in HIV prevention research. *AIDS*. 2010;24:621–35.
11. Harrison A, Newell ML, Imrie J, Hodinott G. HIV prevention for South African youth: which interventions work? A systematic review of current evidence. *BMC Public Health*. 2010;10:102.
12. Maticka-Tyndale E, Barnett JP. Peer-led interventions to reduce HIV risk of youth: a review. *Eval Program Plann*. 2010;33:98–112.
13. Michielsen K, Chersich MF, Luchters S, De Koker P, Van Rossem R, Temmerman M. Effectiveness of HIV prevention for youth in sub-Saharan Africa: systematic review and meta-analysis of randomized and non-randomized trials. *AIDS*. 2010;24:1193–202.
14. Tawil O, Verster A, O’Reilly KR. Enabling approaches for HIV/AIDS prevention: can we modify the environment and minimize the risk? *AIDS*. 1995;9:1299–306.
15. Waldo CR, Coates TJ. Multiple levels of analysis and intervention in HIV prevention science: exemplars and directions for new research. *AIDS*. 2000;14(Suppl2):S18–26.
16. Dworkin SL, Ehrhardt AA. Going beyond “ABC” to include “GEM”: critical reflections on progress in the HIV/AIDS epidemic. *Am J Public Health*. 2007;97:13–8.
17. Auerbach J, Parkhurst J, Caceres C. Addressing social drivers of HIV/AIDS for the long-term response: conceptual and methodological considerations. *Global Public Health*. 2011;(Suppl. 3):S293–309.
18. CSDH. Closing the gap in a generation. Geneva: WHO; 2008.
19. Gupta GR, Ogden AS, Warner A. Moving forward on women’s gender-related HIV vulnerability: the good news, the bad news and what to do about it. *Global Public Health*. 2011;6:S370–82.
20. Jewkes RK, Dunkle K, Nduna M, Shai N. Intimate partner violence, relationship power inequity, and incidence of HIV infection in young women in South Africa: a cohort study. *Lancet*. 2010;376:41–8.
21. Piot P, Greener R, Russell S. Squaring the circle: AIDS, poverty, and human development. *PLoS Med*. 2007;4:1571–5.
22. Hargreaves JR, Bonell CP, Boler T, Boccia D, Birdthistle I, Fletcher A, et al. Systematic review exploring time trends in the association between educational attainment and risk of HIV infection in sub-Saharan Africa. *AIDS*. 2008;22:403–14.
23. Kim JC, Watts CH. Gaining a foothold: tackling poverty, gender inequality, and HIV in Africa. *BMJ*. 2005;331:769–72.
24. Gupta GR, Parkhurst JO, Ogden JA, Aggleton P, Mahal A. Structural approaches to HIV prevention. *Lancet*. 2008;372:764–75.
25. Connell R. Gender: in world perspective. London: Polity Press; 2009.
26. Greig A, Peacock D, Jewkes R, Msimang S. Gender and AIDS: time to act. *AIDS*. 2008;22(Suppl 2):S35–43.
27. Jewkes R, Morrell R. Gender and sexuality: emerging perspectives from the heterosexual epidemic in South Africa and implications for HIV risk and prevention. *J Int AIDS Soc*. 2010;13:6.
28. O’Brien KL, Leichenko RM. Double exposure: assessing the impacts of climate change within the context of economic globalization. *Glob Environ Change*. 2000;10:221–32.
29. Harpham T. Urban health in developing countries: what do we know and where do we go? *Health & Place*. 2009;15:107–16.
30. O’Brien KL, Leichenko RM. Winners and losers in the context of global change. *Ann Assoc Am Geogr*. 2003;93:89–103.
31. Heltberg R, Siegel PB, Jorgensen SL. Addressing human vulnerability to climate change: toward a ‘no-regrets’ approach. *Glob Environ Change*. 2009;19:89–99.
32. Gillespie S. Poverty, food insecurity, HIV vulnerability and the impacts of AIDS in sub-Saharan Africa. *IDS Bull*. 2008;39:10–8.
33. World Bank. Youth unemployment and underemployment in Africa brings uncertainty and opportunity. Washington: World Bank; 2008.
34. Scoones I. Livelihoods perspectives and rural development. *J Peasant Stud*. 2009;36:171–96.
35. Bebbington A. Capitals and capabilities: a framework for analyzing peasant viability, rural livelihoods and poverty. *World Dev*. 1999;27:2021–44.

36. Chambers R, Conway GR. Sustainable rural livelihoods: practical concepts for the 21st century. Brighton, UK: Institute of Development Studies; 1991.
37. Farrington J, Carney D, Ashley C, Turton C. Sustainable livelihoods in practice: early applications of concepts in rural areas. vol. 42. Natural Resource Perspectives: ODI, London; 1999.
38. Leach M, Mearns R, Scoones I. Challenges to community-based sustainable development: dynamics, entitlements, institutions. *IDS Bull.* 1997;28:4–14.
39. Scoones I. Sustainable rural livelihoods: a framework for analysis. Institute for Development Studies Brighton; 1998.
40. Mosoetsa S. Eating from one pot: the dynamics of survival in poor South African households. Johannesburg: Wits University Press; 2011.
41. Campbell C. Letting them die: why HIV interventions fail. Oxford: James Currey; 2003.
42. WHO, UNAIDS. Preventing intimate partner and sexual violence against women: taking action and generating evidence. Geneva: UNAIDS & WHO; 2010.
43. Allison EH, Seeley J. HIV and AIDS among fisherfolk: a threat to 'responsible fisheries'? *Fish and Fisheries.* 2004;5:215–34.
44. Silberschmidt M. Disempowerment of men in rural and urban East Africa: implications for male identity and sexual behavior. *World Dev.* 2001;29:657–71.
45. Jewkes R, Nduna M, Levin J, Jama N, Dunkle K, Puren A et al. Impact of Stepping Stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial. *Brit Med J.* 2008;337:391–5.
46. Dworkin SL, Blankenship K. Microfinance and HIV/AIDS prevention: assessing its promise and limitations. *AIDS Behav.* 2009;13:462–9.
47. Pronyk PM, Hargreaves JR, Kim JC, Morison LA, Phetla G, Watts C, et al. Effect of a structural intervention for the prevention of intimate-partner violence and HIV in rural South Africa: a cluster randomised trial. *Lancet.* 2006;368:1973–83.
48. Odek WO, Busza J, Morris CN, Cleland J, Ngugi EN, Ferguson AG. Effects of micro-enterprise services on HIV risk behaviour among female sex workers in Kenya's urban slums. *AIDS Behav.* 2009;13:449–61.
49. Dunbar MS, Maternowska MC, Kang MS, Laver SM, Mudekunye-Mahaka I, Padian NS. Findings from SHAZI: a feasibility study of a microcredit and life-skills HIV prevention intervention to reduce risk among adolescent female orphans in Zimbabwe. *J Prev Interv Community.* 2010;38:147–61.
50. Jan S, Ferrari G, Watts C, Hargreaves J, Kim J, Phetla G et al. Economic evaluation of combined microfinance and gender training intervention for the prevention of intimate partner violence in rural South Africa. *Health Policy Plan.* 2011;26(5):366–72.
51. Odek WO, Busza J, Morris CN, Cleland J, Ngugi EN, Ferguson AG. Effects of micro-enterprise services on HIV risk behaviour among female sex workers in Kenya's urban slums. *AIDS Behav.* 2009;13:449–61.
52. Pronyk PM, Kim J, Abramsky T, Phetla G, Hargreaves J, Morison LA, et al. A combined microfinance and training intervention can reduce HIV risk behaviour in young female participants. *AIDS.* 2008;22:1659–65.
53. Erulkar A, Chong E. Evaluation of a savings & micro-credit program for vulnerable young women in Nairobi. Washington: Population Council; 2005.
54. Gibbs A, Campbell C, Maimane S, Nair Y, Sibiya Z. Youth participation in the fight against AIDS in South Africa: from policy to practice. *J Youth Stud.* 2009;12:93–109.
55. Ssewamala F, Ismayilova L, McKay M, Sperber E, Bannon W, Alicea S. Gender and the effects of an economic empowerment program on attitudes toward sexual risk-taking among AIDS-orphaned adolescent youth in Uganda. *J Adolesc Health.* 2010;46:372–8.
56. Baird S, Garfein R, McIntosh C, Ozler B. Effect of a cash transfer programme for schooling on prevalence of HIV and herpes simplex type 2 in Malawi: a cluster randomised trial. *Lancet.* 2012;379(1329):1320–9.
57. Evans DA, Kremer M, Ngatia M. The impact of distributing school uniforms on children's education in Kenya. Bost: Poverty Action Lab; 2009.
58. Morrell R, Epstein D, Untenhalter E, Bhana D, Moletsane R. Toward gender equality: South African schools during the HIV/AIDS epidemic. Durban: UKZN Press; 2009.
59. Jewkes R. Where to for sexual health education for adolescents in Sub-Saharan Africa? *PLoS Med.* 2010;7:e1000288.
60. Dunbar MS, Dufour M, Lambdin B, Mudekunye-Mahaka I, Nhamo D, Padian N. The SHAZI! project: results from a Phase II trial of economic livelihoods and life skills education for HIV prevention among adolescent female orphans in Zimbabwe. Personal communication; 2012.
61. Gibbs A, Campbell C, Nair Y, Maimane S. What do youth want? The mismatch between youth aspirations and participatory HIV/AIDS programmes. *Afr J AIDS Res.* 2010;153–63.
62. Ramella M, De la Cruz R. Taking part in adolescent sexual health promotion in Peru: community participation from a social psychological perspective. *J Community Appl Soc.* 2000;10:271–84.
63. Hallman K, Roca E. Siyakha Nentsha: building economic, health, and social capabilities among highly vulnerable adolescents in KwaZulu-Natal, South Africa. Washington: Population Council; 2011. p. 1–4
64. Campbell C, Jovchelovitch S. Health, community and development: towards a social psychology of participation. *J Community Appl Soc.* 2000;10:255–70.
65. Freire P. *Pedagogy of the oppressed.* New York: Continuum; 1973.
66. Dworkin SL, Dunbar MS, Krishnan S, Hatcher AM, Sawires S. Uncovering tensions and capitalizing on synergies in HIV/AIDS and antiviolence programs. *Am J Public Health.* 2011;101:995–1003.
67. Jewkes R, Wood K, Duvury N. I woke up after I joined Stepping Stones': meanings of an HIV behavioural intervention in rural South African young people's lives. *Health Educ Res.* 2010;25:1074–84.
68. CAMFED business training & microfinance, accessed in March 2012. Available from: [http://us.camfed.org/site/PageServer?pagename=what\\_microfinance](http://us.camfed.org/site/PageServer?pagename=what_microfinance)
69. Acquired immune deficiency syndrome (AIDS) prevention through reduced choice disability, accessed in March 2012. Available from: <http://www.controlled-trials.com/ISRCTN28557578>
70. Effects of cash transfer and community mobilization in young South African women, accessed in March 2012. Available from: [http://www.hptn.org/research\\_studies/hptn068.asp](http://www.hptn.org/research_studies/hptn068.asp)
71. McMichael P. *Development and social change: a global perspective.* 4th ed. New York: Pine Forth Press; 2008.
72. HEARD, Medical Research Council, Project Empower: Creating Futures. Durban, HEARD: HEARD, MRC, Project Empower; 2012.
73. Baird S, Chirwa E, McIntosh C, Ozler B. The short-term impacts of a schooling conditional cash transfer program on the sexual behaviour of young women. *Health Econ.* 2010;19:55–68.
74. Duflo E, Dupas P, Kremer M, Sinei S. Education and HIV/AIDS prevention: evidence from a randomized evaluation in Western Kenya. Washington: World Bank; 2006.
75. Hallfors D, Cho H, Rusakaniko S, Iritani B, Mapfumo J, Halpern C. Supporting adolescent orphan girls to stay in school as HIV risk prevention: evidence from a randomized controlled trial in Zimbabwe. *Am J Public Health.* 2011;101:1082–8.