

UNAIDS Inter-Agency Task Team on Education

Quality of evidence assessment for literature considering the impact of education on HIV and AIDS

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Tel: +44 (0)20 7922 0300 Fax: +44 (0)20 7922 0399 www.odi.org.uk

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Quality of evidence assessment for literature considering the impact of education on HIV and AIDS

Prepared by:

Claire O'Meara and Fiona Samuels

UNAIDS Inter-Agency Task Team on Education

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Acronyms

AAU	Association of African Universities
ADEA	Association for the Development of Education in Africa
AED	Academy for Educational Development
AIDS	Acquired Immune Deficiency Syndrome
AIR	American Institutes for Research
ART	Antiretroviral therapy
AusAID	Australian Agency for International Development
CIDA	Canadian International Development Agency
DHS	Demographic and Health Survey
EDC	Education Development Center
EFA	Education for All
EI	Education International
ERIC	Education Resources Information Center
ESART	EduSector AIDS Response Trust
GBV	Gender-based violence
GCE	Global Campaign for Education
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HIV	Human Immunodeficiency Virus
IASC	Inter-Agency Standing Committee
IATT	Inter-Agency Task Team
IDP	Internally displaced person
ILO	International Labour Organization
INEE	Interagency Network for Education in Emergencies
KAP	Knowledge, attitudes and practices
MAP	Multi-Country HIV/AIDS Programme
MICS	Multiple Indicator Cluster Survey
MoEs	Ministries of education
NGO	Non-governmental organization
NORAD	Norwegian Agency for Development Cooperation
ODI	Overseas Development Institute
OVC	Orphans and Vulnerable Children
PCD	Partnership for Child Development
PLHIV	People living with HIV
SIDA	Swedish International Development Cooperation Agency
SSA	Sub-Saharan Africa
STI	Sexually transmitted infection
SWAp	Sector-wide Approach
UNAIDS	United Nations Joint Programme on HIV/AIDS
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
USAID	United States Agency for International Development
VCT	Voluntary counselling and testing
WHO	World Health Organization
WFP	World Food Programme

Executive summary

Background

In September 2008, the Overseas Development Institute (ODI) was commissioned by the United Nations Educational, Scientific and Cultural Organization (UNESCO) to carry out a stocktaking review of research on HIV and AIDS in the education sector. The aim of this review was to identify research that had been carried out by the United Nations Joint Programme on HIV/AIDS (UNAIDS) IATT on Education, its members and others, and to identify gaps and ways of complementing and building on existing research.

A total of 133 documents were reviewed for the first stocktaking exercise. Following this, the IATT commissioned a more comprehensive second-phase stocktaking exercise, which built on the first, updated it with missing and more recent publications in the field of HIV and AIDS in the education sector, and provided more in-depth analysis of the data, including an assessment of the quality of the evidence presented.

Two key products have been produced in this second phase of the stocktaking: a report updating the literature review, summarizing the evidence from the research presented, and a second document, assessing the quality of the evidence available. The current report is the second of the two and aims to provide the IATT with a summary of the quality and type of evidence available, indicating where strengths and weaknesses lie, in order to make suggestions for future research.

Methodology

This report was developed through a two-step process. The first step, closely linked to the production of the descriptive thematic report, involved widespread gathering of potential literature relevant to the broad themes of the previous stocktaking report. These themes were:

- i) knowledge, attitudes and practices (KAP)
- ii) factors that contribute to behaviour change
- iii) the learning environment
- iv) impact of HIV on education systems, and
- v) policy response.

In order to focus on current evidence within the literature, technical guidance papers, toolkits and policy documents were excluded, as were all documents published before 2000. Using database searches and recommendations from members of the UNAIDS IATT for Education, 306 documents were identified for potential inclusion. This was then narrowed down further to 109 documents that fitted the inclusion criteria; 96 of these were sourced from journals, with the other 13 studies produced by individual organizations or consortiums.

The second step was the building of a framework to assess these studies. In order to identify commonalities, a superficial review of each document's abstracts and executive summaries was conducted.

The thematic scope was limited to those documents addressing the impact of education on HIV and AIDS, rather than those considering the impact of HIV and AIDS on education. It was felt that greater confidence in the quality of the evidence base was required in order to determine the role of education in reducing the impact of HIV and AIDS.

Key findings

Through a process of systematic assessment, this study succeeded in indicating a number of areas where current research is performing well and where greater attention may be required. It offers a useful system by which future research can be measured and strengthened. However, it has also revealed a range of more complex issues, unanswered within the confines of this process, as to the relationship between quality research and impact on policy and programming, and how attention to cross-cutting issues such as gender, age and cultural context can be assessed. There are still gaps that need to be addressed and weaknesses to be challenged.

Regional bias and gaps

Evidence is strongly weighted to Africa, and in particular South Africa, with limited evidence addressing the situation in lower prevalence and concentrated epidemic settings. There are many more studies focusing on the identification of challenges or needs for HIV and AIDS education than there are evaluating the impact of interventions. There is also a gap in studies addressing factors that affect successful implementation, such as teacher training, access to related services through schools and community, or parental attitudes to HIV and AIDS education.

Methodological rigour

There is a strong reliance on proxy measures of impact, particularly the use of KAP surveys that capture reported behaviours over short periods of time. Current evidence may not be sufficiently capturing the sustainability of changes being made. Studies employing qualitative methods are consistently less rigorous in their approach when compared to statistically driven methods. However, examples of mixed-methodology designs combining statistical rigour with descriptive depth suggest an effective way forward.

Presentation of findings and analysis

Analysis is strong, according to the standards set by this assessment. However, at times it was observed that clarity was lost, especially for lay readers, due to the use of scientific language to describe findings.

Inconsistent analysis of gender and other cross-cutting themes suggests that the full implications of gender on need and intervention effectiveness may be overlooked, reducing the evidence available to inform appropriate programming and policy as a result.

Communication of evidence

Lack of attention to summarising findings and providing recommendations within concluding sections reduces clarity for the reader regarding the implications of the research. In addition, weak targeting and lack of awareness of audience may be creating a gap between research findings and translating these into policy.

Recommendations

Three areas in particular emerged as requiring further research and analysis:

- Current levels of gender sensitivity within research methodology and analysis of findings within this thematic area.
- The impact of studies on policy, programming and further research, with a view to identifying characteristics of research that stimulates or enables change.

- Effective communication methods for sharing evidence and new learning.

Specific recommendations include the following:

- New research should consider focusing on less well represented epidemic settings.
- Intervention evaluations should consider factors related to successful outcomes – particularly teacher training, access to services through schools.
- More attention should be given to intended outcomes of the study from the outset and, where possible, an identifiable audience for the study.
- There should not be an over-reliance on short-term KAP indicators; instead, impact should be captured over longer timeframes and, where ethical considerations permit, incorporating biological outcome measures should be considered.
- Research that has the capacity to measure broader social change and not just change at the individual level should be developed.
- Methodological rigour of qualitative research in this area should be strengthened by clearly identifying rigour standards and promoting good practice.
- Use of mixed methodologies to help target research and enhance understanding of findings should be considered.
- Key findings and outcomes should be expressed clearly, with supporting visual information.
- Where gender and other key socio-demographic and context-related data is collected as part of the research, the implications for findings and recommendations should be fully explored.
- Adequate attention should be given to concluding sections of reports, ensuring recommendations and key findings are clearly made and presented in a manner that is relevant to the intended audience.
- Outputs of studies should be targeted appropriately, e.g. policymakers do not have time to read long reports, need for short succinct documents.
- Appropriate communication and dissemination plans should be included in studies.

1. Introduction¹

While significant efforts have been made to expand prevention and treatment of HIV and AIDS, there is ample evidence that multisectoral efforts are required at national, regional and global levels to halt the spread of HIV and to address and mitigate the impacts of the epidemic (United Nations Joint Programme on HIV/AIDS (UNAIDS) and World Health Organization (WHO), 2006). In the context of such a response, the education sector must play a major role. Education, in both formal and informal contexts, has been shown to be critical in HIV prevention (Kelly, 2006) and can play an important complementary role in ensuring care and support for those who are affected by HIV and AIDS (UNAIDS Inter-Agency Task Team (IATT) on Education, 2008).

The UNAIDS Inter-Agency Task Team (IATT) on Education was established in March 2002 in recognition of the need to improve and accelerate the education response to HIV and AIDS. Its specific objectives are to promote and support good practices in the education sector related to HIV and AIDS; and to encourage alignment and harmonization within and across agencies to support global and country level actions. To this end, the IATT contributes to the HIV and AIDS response by furthering dialogue and understanding around the role of education and by generating documents, experiences and research that can be shared.

In September 2008, the Overseas Development Institute (ODI) was commissioned by the United Nations Educational, Scientific and Cultural Organization (UNESCO) to carry out a stocktaking review of research on HIV and AIDS in the education sector. The aim of this review was to identify research that had been carried out by the UNAIDS IATT on Education, its members and others, and to identify gaps and ways of complementing and building on existing research. A total of 133 documents were reviewed. Findings were then presented at the IATT research meeting in September 2008. Given the time constraints under which the first report was completed, it was felt that a large amount of information had yet to be 'mined' and included. Thus it was proposed that the IATT should commission a more comprehensive stocktaking exercise, which would build on the first, update it with missing and more recent publications in the field of HIV and AIDS in the education sector, and provide more in-depth analysis of the data, including an assessment of the quality of the evidence presented. With such information, the IATT would then be better able to identify the availability and gaps in the evidence base for advocating and programming education sector responses to HIV and AIDS.

Two key products have been produced in this second phase of the stocktaking: a report updating the literature review, summarizing the evidence from the research presented, and a second document, assessing the quality of the evidence available. This report is the second of the two and aims to provide the IATT with a summary of the quality and type of evidence available, indicating where strengths and weaknesses lie, in order to make suggestions for future research.

¹ See Annex 1 for Terms of reference.

2. Methodology

2.1 Process

This report was developed through a two-step process. The first step, closely linked to the production of the descriptive thematic report, involved widespread gathering of potential literature relevant to the broad themes of the previous stocktaking report. In order to focus on current evidence within the literature, technical guidance papers, toolkits and policy documents were excluded, as were all documents published before 2000. For this stage, databases including Web of Knowledge, Education Resources Information Center (ERIC), PubMed and the UNESCO HIV and AIDS Clearinghouse were searched and members of the UNAIDS IATT for Education were invited to provide their suggestions. From this, 306 documents were identified for potential inclusion. This number was then narrowed down further to 109 documents that fitted the inclusion criteria (see Table 2.1).

The second step was the building of a framework to assess these studies. In order to identify commonalities, a superficial review of each document's abstracts and executive summaries was conducted. Four broad types of documents were identified through this process. As seen in Table 2.1, these four types of documents had different purposes. Type I (situation assessments) were identified as mapping the situation as it currently stands, either for the purposes of providing baseline data, identifying needs to be addressed or capturing a picture of current trends. In contrast document type II (intervention evaluations) measure the impact that an intervention programme or policy has had on that situation. Both of the first two types of document rely on primary data collection. Type III (literature reviews) are studies that bring together evidence from secondary sources, including meta-reviews. Type IV (other) contains sources of information that are not evidence-based but still make up the literature base for the impact of education on HIV and AIDS. Initially these were referred to as 'think pieces' in order to capture their potential purpose to broaden discussions and present new ideas and approaches for which evidence is required. However, this did not cover the broad range of documents reviewed, which included policy and policy analysis, good practice guides, strategic frameworks and technical guidelines that were all essentially designed with the purpose of supporting practice and policymaking.

Table 2.1 Document types

Type of document	Purpose	Predominant evidence source	Number of documents assessed
I) Situation assessments	To provide a baseline or overview of a situation	Primary	57
II) Intervention evaluations	To capture the impact of a particular intervention, project, policy or other	Primary	37
III) Literature reviews	To bring together and review evidence from other sources (can still be used to provide a situation assessment or intervention evaluation)	Secondary	15*
IV) Other	To support and improve quality of practice and policymaking	Secondary	Not assessed
Total			109**

* Additional analysis of the type III documents later on in the assessment period identified the literature reviews as being either for the purpose of situation assessment or intervention evaluation.

** Total number assessed following application of inclusion criteria described below and in Box 2.1.

It became evident that the vast majority of documents belonged to document types I and II and addressed the 'impact of education on HIV and AIDS'. Documents considering the 'impact of HIV on education' were both fewer in number and more varied in their purpose, thereby largely falling into the 'other' category.

Based on these findings, an assessment framework was developed that focused on the first three types of documents: situation assessments, intervention evaluations and literature reviews. Due to insufficient commonalities between the documents, the fourth type was tentatively excluded from the comparative framework.

The assessment criteria used a flexible framework based around four broad sections found across the reports reviewed:

- Focus: the establishment of the geographical and thematic focus, the intended outcomes of the report and its relationship to an established knowledge base.
- Methodology I: the description of methodology used, justification of choices and consideration of its potential limitations.
- Methodology II: the choice and suitability of methods used, as well as the measures put in place to minimize bias.
- Analysis: the presentation and analysis of findings.
- Conclusions: the summary of results and key implications, limitations of findings and recommendations made for future research, programming or policy.

For each section, a score was used to establish its strength (0–unfulfilled, 1–rudimentary, 2–satisfactory or 3–comprehensive). A number of key elements were identified as indicators of rigour. Two sets of indicators were developed: one set for documents based on primary data (e.g. surveys, focus group discussions); and another set for documents based on secondary data (e.g. literature reviews, desk studies). (See Annex 2 for full assessment criteria). For example, for primary data based studies, methodology indicators considered sampling strategies and response rates. For secondary data, on the other hand, the indicators required evidence of inclusion and exclusion criteria for literature being reviewed and the use of multiple sources of data. Additional weighting was given to the methodology section, which was assessed for both 'quality of explanation' and 'choice and suitability of tools used' (maximum of six points available). This was in order to reflect particular interest by the IATT to commend methodological rigour, and because of the potential to use/adapt and/or replicate the tools for other studies. However, it was maintained that for research to be labelled as outstanding, all sections of the report needed to show strength. Total marks for studies were grouped into four categories: 13–15 points (strong in all areas); 9–12 (strong in parts); 5–8 (contains significant weaknesses); 0–4 (very weak).

The development of this framework drew from a recently published evidence quality review by the Quality Assurance Project, the United States Agency for International Development (USAID), the Health Care Improvement Project and the United Nation's Children's Fund (UNICEF), (2008). This framework assessed programming for children affected by HIV and AIDS in low prevalence and concentrated epidemic countries. This study, which also employed an assessment framework structured around the four essential sections of a study, demonstrates successfully the rigour of this approach for assessing evidence quality.

Following input into the assessment framework and suggested criteria for inclusion made by the IATT secretariat, the June 2009 IATT meeting was used as an opportunity to gather further feedback from its members. A presentation was made covering three key areas: the research process so far, challenges arising, and the proposed assessment framework. Through this process, it was agreed the assessment would exclude type IV documents, since they could not be assessed adequately in such a way.

In addition, the thematic scope was limited to those documents addressing the impact of education on HIV and AIDS, rather than those considering the impact of HIV and AIDS on

education (see Box 2.1 for inclusion criteria.) This was justified because it was felt that greater confidence in the quality of the evidence base was required in order to determine the role of education in reducing the impact of HIV and AIDS. Following the application of the inclusion criteria, the total number of documents to be assessed was reduced from 306 to 109.

Box 2.1 Inclusion criteria

Thematic focus

Includes – documents that address the impact of education on the HIV epidemic:

- Knowledge, attitudes and practices (KAP) in relation to HIV and AIDS (pre- and post-intervention).
- KAP in relation to HIV and AIDS education (pre- and post-intervention).
- Effects of service provision by schools (school feeding, counselling, voluntary counselling and testing (VCT), access to antiretroviral therapy (ART) etc.).
- Impact of education on prevalence levels.

Excludes documents that address the impact of HIV and AIDS on education:

- Teacher mortality and attrition.
- Student demand for education.
- Demand for HIV-related services – includes ART, VCT, social reproduction role.

Excludes documents that address policy response.

Type of document

Includes – documents written with purpose of providing either:

- situational assessment or
- intervention evaluation

And based on evidence either collected from

- primary sources
- secondary sources (including meta-reviews).

Excludes*

- Toolkits/Good practice guides/Policy briefs/Position papers/Case studies/Process evaluations.

*Whilst these are not included in the assessment, they may still be referred to in the accompanying thematic study, where relevant.

2.2 Limitations

A number of limitations were faced by the review team. Firstly, a number of documents initially identified as potentially relevant were not included in the review due to inaccessibility. Whilst this reduced the comprehensiveness of the review, when considering that they were not accessible through the University of London, the London School of Economics, the University of Amsterdam or Google Scholar, it is fair to suggest that their potential impact is limited, and therefore they are of limited relevance to the outcomes of the report. Whilst attempts were made to include non-published documents in the review, many failed to meet the inclusion criteria as they were case studies, good practice guides or policy papers. Eighty-eight per cent (n=96) of all documents reviewed come from peer-reviewed journals; this may have led to a bias in higher quality evidence

(likely to have led to an overall increase in the quality of evidence being reviewed). The review is limited to studies written or translated into English; this potentially reduces the geographical scope of the review, specifically with regards to South and Central America and Francophone Africa. Due to time limitations, a cohort of articles identified at the end of the assessment period were prioritized for inclusion according to regional focus, with articles from less well represented regions prioritized and studies from Europe and North America excluded. The number of studies from Europe and North America is not therefore likely to be an accurate reflection of all those available within the criteria.

As highlighted above, the development of a usable set of assessment criteria required a narrowing of inclusion criteria. While this refining process helped to increase the methodological rigour of the study, the reduction in type and thematic focus of documents being reviewed reduced the potential scope of the study. It also meant that the focus was given to those areas of research that are already most strongly established rather than helping to develop less well populated areas of HIV and AIDS education research.

The assessment process is based largely on the subjective understanding of the assessors, therefore making it open to potential bias and human error. However, steps were taken to reduce this through the use of checklists for key elements indicating quality, and by cross-checking between assessors to ensure consistency in marking. Whilst the assessment framework is by no means an exhaustive system of quality review, it has been proved to be an effective tool in a comparable review of evidence by the Quality Assurance Project et al. (2008) regarding the situation of children affected by HIV in low-prevalence and highly concentrated situations. The similarity of the two frameworks' logic developed independently also strengthens this report's proposed understanding of quality research.

The indicators developed did not require assessors to look for evidence of gender or other cross-cutting themes of age and cultural context within studies. To do so effectively was beyond the scope of the study, requiring the development of additional criteria assessing, for instance, what qualifies as adequate gender-sensitive methodology and analysis. Although they were not systematically assessed, observations on gender disaggregated findings were made by assessors and some tentative findings can be made based on these. However, recognizing the importance of gender to the question of education's impact on HIV and AIDS, this is a limitation for the study's overall findings.

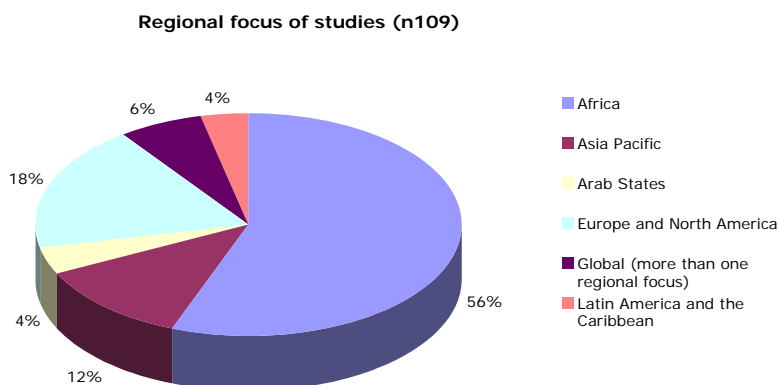
Annex 3 contains the full list of documents reviewed, along with the key assessment criteria.

3. Geographic and thematic focus of studies

3.1 Regional focus and purpose of studies

Of the 109 studies that met the study’s inclusion criteria, 96 were sourced from journals, with the other 13 studies produced by individual organizations or consortiums.

Figure 3.1 Regional focus of studies



As shown in Figure 3.1, 56 per cent (n=61) of the studies focused on the geographical region of Africa, with only 12 per cent (n=13) falling within the Asia Pacific region, and less than 4 per cent (n=4) addressing either countries within Latin America and the Caribbean or the Arab States respectively. Even when taking into account potential methodological bias towards English language research, these results reveal a considerable bias towards mapping the largely generalised and hyper-epidemic scenarios found in sub-Saharan Africa. Within Africa, the picture is again unbalanced, with 23 studies featuring findings from South Africa, compared to at most four focusing on any other single country.

Table 3.1 Geographical spread of documents by type

Region	Type of documents			Total
	Type I (situation assessment)	Type II (intervention evaluation)	Type III (literature review)	
Africa	34	19	5	58
Asia Pacific	9	4	0	13
Arab States	4	0	0	4
Europe and North America	6	10	4	20
Latin America and the Caribbean	2	2	0	4
Global (more than one regional focus)	2	2	6	10
Total	57	37	15	109

Approximately 52 per cent (n=57) of the studies were assessed as being type I situation

assessments; 34 per cent (n=37) were identified as being type II intervention evaluations; and 14 per cent (n=15) were identified as being type III literature reviews. Of the 14 per cent classified as type III, ten could be described as systematic reviews of evidence. One of these belongs to the Cochrane review database (Underhill, 2007). When type III documents were analysed further to establish their overall purpose, new totals for situation assessment and intervention evaluations were produced. The inclusion of type III documents brought the overall total of situation assessments to 68 studies (62% per cent) and intervention evaluations to 41 studies (38 per cent). This suggests there is an imbalance towards producing evidence to support the mapping of the current situation. While situation assessments play an important role in identifying needs and providing baseline data for interventions, this disparity means that less evidence is available for measuring the impact of interventions.

3.2 Target groups and issues being addressed²

Of the type I studies, 54 per cent (n=37) were focused on students and young people, 32 per cent (n=22) looked at teachers, and 3 per cent (n=2) looked at parents and communities. The ten studies identified as 'other' for population were mainly attempting to establish broad relationships between educational attainment and HIV prevalence, often using national data sets or longitudinal studies for large groups (see Lakhanpal et al., 2008; Vandermoortele and Delamonica, 2000; Johnson et al., 2009). Table 3.2 presents the themes by target population group.

Table 3.2 Number of studies by target group, thematic focus and document type

	Students & young people		Teachers		Parents & communities		Other	
	HIV and AIDS	HIV & AIDS education	HIV & AIDS	HIV & AIDS education	HIV & AIDS	HIV & AIDS education	HIV & AIDS	HIV & AIDS education
Type I	29	7	14	18	2	3	2	1
Type II	28	1	4	2	0	0	0	0
Type III	10	1	0	0	0	0	0	0
Total*	67	9	18	20	2	3	2	1

*Where studies included more than one target group or issue they are counted again, producing a cumulative total higher than the total number of studies assessed.

The category with the largest number of studies is type I studies that include a focus on students and young people. These 29 studies provided information about students and young people's HIV and AIDS knowledge, attitudes, practices, access to services or other related issues. Eighteen of these studies were based on quantitative survey methods; four studies used qualitative approaches and seven used a combination of both approaches. A particularly large-scale example of this is Biddlecom et al.'s 2007 study, which surveyed young people aged 12–19 in four countries in sub-Saharan Africa. This study gathered data relating to young people's knowledge of HIV and AIDS and transmission routes, as well as attitudes and practices in relation to sexual health and risks, including condom use, frequency of sexual relations and experiences of forced sex.

A much smaller number of studies attempted to gather information regarding students and young people's attitudes towards, and/or experiences of, HIV and AIDS and education (see Jacob et al., 2007; Boler, 2003; Mturi, 2005). The UNAIDS IATT's framework for Quality Education and HIV & AIDS (2006) presents a learner centric model as essential for quality education, acknowledging what the learner brings in terms of experience and knowledge, and providing an environment conducive to learning. Lack of student engagement in research therefore suggests an

² For more information on the findings of these studies, see the complementary thematic report.

as yet untapped source of information for those interested in how to achieve this vision of quality education.

Type II documents looking at change almost exclusively focus on impacts of interventions relating to students' and young people's HIV and AIDS-related knowledge, attitudes and practices (KAP). There are a number of situation assessments that identify the negative attitudes and poor knowledge of HIV and AIDS sexuality education among teachers, parents and communities as being problematic (e.g. Adamchak, 2005; Avina and O'Connell, 2006; Bankole, 2007; Boler, 2003; Oshi et al., 2005). However, only four studies attempt to measure the success of interventions addressing this situation. All of these provide evidence relating to impacts on teachers, focused on training-based interventions and measured changes to teachers' personal knowledge of HIV and AIDS. Two also attempt to establish the impact of training on teachers' attitudes to teaching about HIV and AIDS. However, in neither case was the impact on their teaching practices captured or outcomes regarding students' KAP assessed.

Figure 3.2 Issues explored in studies addressing HIV and AIDS

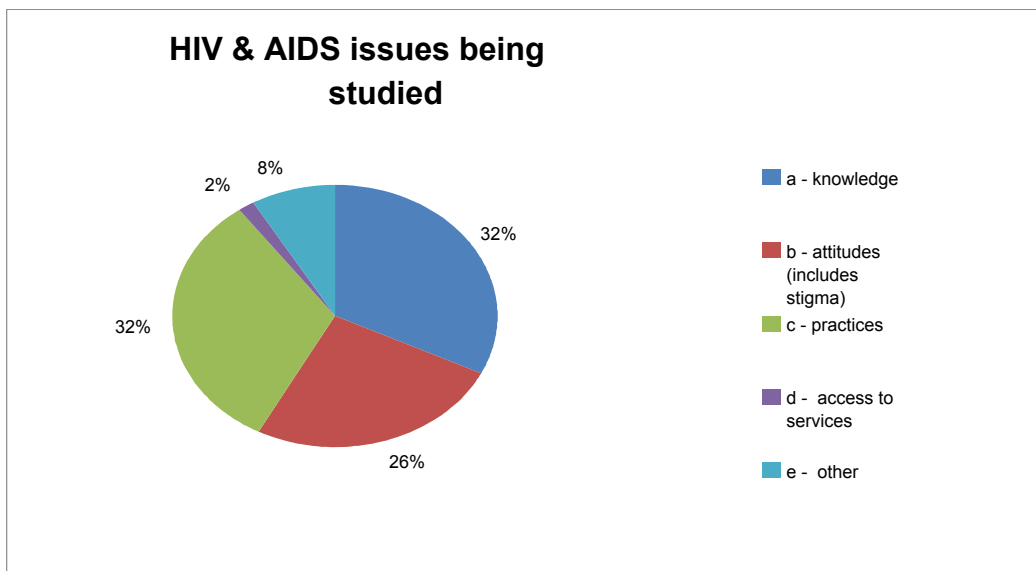
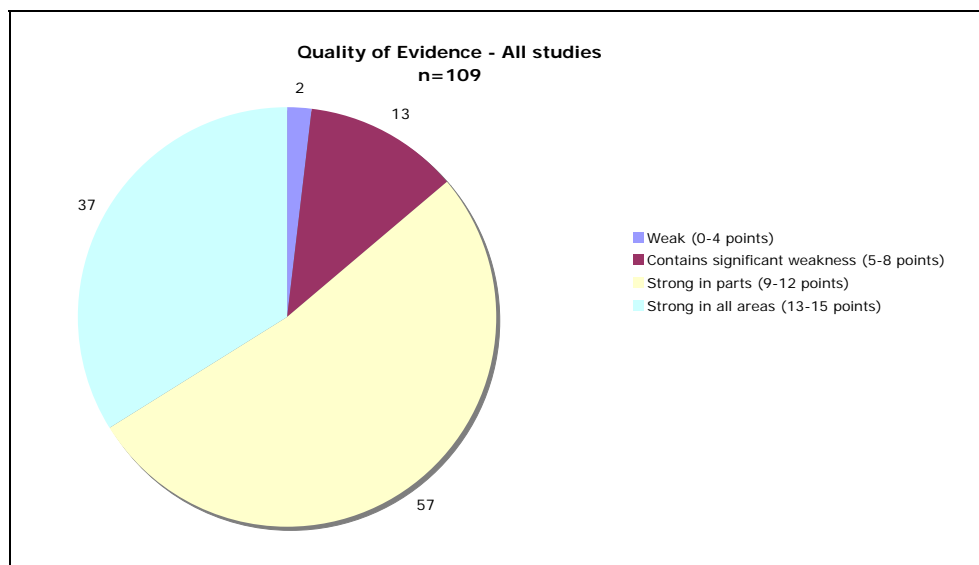


Figure 3.2 above shows the spread of HIV and AIDS issues being addressed across all the studies. The majority of studies address more than one issue. 'Knowledge' is shown to be the most frequently addressed issue, but only two studies looked at knowledge in isolation of any other assessed issue (Lal et al., 2008; Vavrus, 2006). The question of HIV and AIDS-related 'practices' receives almost equal treatment, and 'attitudes' is not far behind. For 'practices', almost all studies relied on self-reported behaviour, as captured through questionnaires or focus groups discussions. The limitations of this approach, due to the inability to verify the accuracy of reported behaviours, are widely identified by authors. Despite this, only nine studies used biological data to measure changes in practices. An example of such an approach is Jewkes et al. (2008), who tested the sample group for HIV and Herpes simplex type 2 (HSV-2) at the baseline and two further times (ending at 24 months) to establish the impact of a non-formal education programme ('stepping stones') on young people's sexual health. Duflo (2006) avoided relying on self-reported practices by using the proxy measure of childbearing and pregnancy rates amongst the intervention group to indicate levels of unprotected and consequently risky sexual behaviour. Both these examples present alternative challenges for ensuring accuracy and limiting bias such as self-selection by participants who are willing to be tested, and, in the case of childbirth, collecting data for females only, which also may not capture pregnancies ending in termination.

4. Quality of evidence amongst studies

4.1 Quality by region and document type

Figure 4.1 Number of studies by score category



The quality of the studies reviewed varied. Scores range across all four categories: weak; contains significant weaknesses; strong in parts; and strong in all areas. The lowest score received by one study was three, with eight studies (7 per cent) receiving the maximum of 15 points. Despite this range in scores, 86 per cent (n=94) of the studies were found to be strong in part or all areas.

Table 4.1 Quality by region

Region	0-4 points	5-8 points	9-12 points	13-15 points
Africa	0	8	28	22
Asia Pacific	1	1	9	2
Arab States	0	1	3	
Europe and North America	1	2	12	5
Latin America and the Caribbean	0	0	2	2
Global (more than one regional focus)	0	1	3	6
Total	2	13	57	37

Comparing strengths of evidence by region proved inconclusive, as so few studies were focused outside Africa. Out of the ten studies with a global focus, six (60 per cent) were assessed as strong in all areas, almost twice the overall average. This suggests that the most geographically comprehensive reviews are also among the most rigorous, which may reflect greater funding behind broader-scope studies or that large-scale research projects are more likely to involve considerable planning and attention to follow up.

Table 4.2 Quality of evidence by document type (table)

Type of document	0–4 points	5–8 points	9–12 points	13–15 points	Total
I	2	8	33	14	57
II	0	1	21	15	37
III	0	4	3	8	15
Total	2	13	57	37	109

Figure 4.2 Quality of evidence by document type (bar graph)

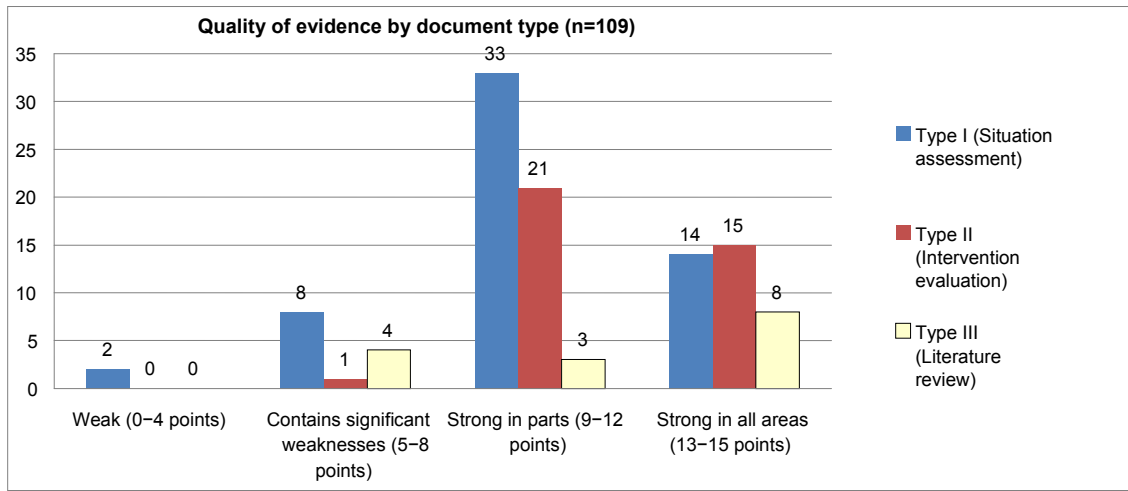


Table 4.2 breaks down the quality assessment by the three document types assessed. It reveals that type I and type III studies had the largest proportion of weaker reports (scoring eight points or less).

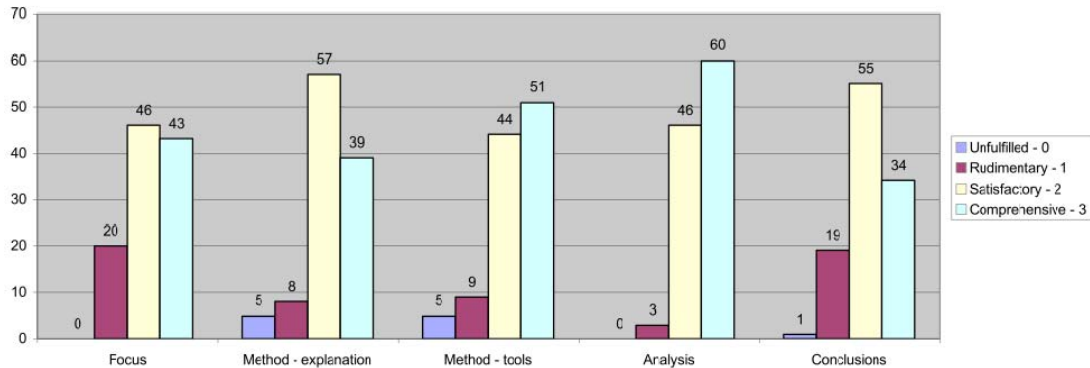
None of the intervention evaluations (type II) were identified as weak, and only one was found with significant weaknesses (Francis, 2008). Encouragingly 41 per cent (n=15) of all intervention evaluations were awarded 13 or more points. This high level of quality is particularly important in light of the relatively small number of studies measuring impact. The large proportion of studies achieving top scores may, however, indicate that the assessment criteria used were not nuanced enough to analyse the depth of methodological rigour once all indicators of quality had been met. This potential limitation and its implications will be considered further in the discussion section.

An example of a particularly strong intervention evaluation is Dupas’ 2009 randomized experiment in Kenya, which tested the extent to which teenagers responded to risk information in comparison to the national abstinence-only curriculum. Using both self-reported behaviour and pregnancy rates to measure changes in unprotected sex and other risky sexual practices, the study found that providing information on the relative risk of HIV infection by partner’s age led to a 28 per cent decrease in teen pregnancy. Self-reported sexual behaviour data suggested substitution away from older (riskier) partners and towards protected sex with same-age partners.

4.2 Strengths and weaknesses of documents by assessment categories

As is depicted in Figure 4.2, the largest proportion of all studies (n=57 or 53 per cent) fell within the category of ‘strong in parts’, suggesting that most studies were inconsistent in their reporting strengths. Figure 4.3 breaks down the findings to show where the strengths and weaknesses lie across the four main areas assessed: focus; methodology I and II; analysis; and conclusions.

Figure 4.3 Breakdown assessment scores by criteria



Focus

Looking first at the quality of the studies' 'focus' (Figure 4.3), 18 per cent (n=20) of the studies reviewed provided only rudimentary information about the purpose and focus of their research. These studies, scoring just one point, lacked detail about the country or target group of the research and offered little or no consideration of how the study related to other research findings or intended to meet an established need. For example, the introduction to Borgia et al.'s study (2005) comparing outcomes of peer education against teacher led HIV and AIDS education in Rome gave no information about the age of the students being sampled, or any context about the levels of HIV risk in Rome or current HIV and AIDS education taking place.

In contrast, reviews that contained particularly comprehensive 'focuses' outlined the relationship of the study to a wider body of research, introduced the target group and context, and also identified an intended outcome and audience for the report. An extract from Biddlecom et al.'s (2007) study abstract states, "*The project seeks to contribute to the global fight against the HIV epidemic among adolescents... It also seeks to communicate new knowledge to a broad audience (including policymakers, health care providers and the media) in each country, as well as regionally and internationally, and to stimulate the development of improved policies and programs to serve young people.*" This clarity of intention for the report influenced the style of the entire report. True to its intended audience, it contained a balance of detailed information and easy to understand facts, with recommendations tailored to those the report sought to influence.

Methodology

As highlighted earlier, methodology was assessed twice, first for the quality of its explanation of methods, and second for the choice and suitability of the tools used. Interestingly, there is a difference in the results for these two areas (see Figure 4.3), with 12 fewer studies achieving the highest score for their explanation than for the quality of tools they employed. This suggests less attention is being given to the critical evaluation of choices made about methods. This is significant in that it implies that methodological weaknesses are not being as well identified or accounted for as they could be.

Of the five studies that received zero points overall for methodology, three were type III documents. Since they are based on secondary sources, this may explain why the authors felt less need to provide a methodology (Jukes and Desai, 2005; Walcott et al., 2007; Vandermoortele and Delamonica, 2000). However, without such information it is not possible to elicit where potential

biases may exist in the evidence being presented. Of the two type I documents, one appeared to be a summary of the research, but did not provide details of where a more full account could be found (Turhan et al., 2006). The other by Popova (2007) referred to a survey conducted by a third party but again gave no indication of where a more full account of the methodology could be found.

Looking at those documents that scored weakly, a number of common factors can be identified; these include small sample sizes, lack of comparative group and the use of potentially ineffective data collection tools. For example, Bhana’s 2009 article on school teachers’ approach to teaching HIV and AIDS in primary schools in South Africa offered an in-depth analysis of two lessons taking place in contrasting schools. Whilst the ethnographic nature of the study favoured the use of a small sample group, no consideration was given to what implications this had for generalising findings or suggestions on how such findings could be more widely used and scaled up. In one school, the teacher under observation had never taught about HIV and AIDS before so prepared the lesson purely for the purpose of the research and being observed. The implications of basing findings on a one-off lesson were not considered as a limiting factor.

Wang’s study (2005), which undertook an intervention evaluation to assess the potential of comprehensive sex education in China, provided more details about the survey methodology. However, the methodology still did not explain how participants were chosen within the two locations identified, and gave no details on gender or age of participants.

In contrast, Maticka-Tyndale et al. (2007) provided an extremely comprehensive description of methodology in their 2007 evaluation of a National Primary School HIV intervention in Kenya. Their explanation made a strong link between the research goal and data collection and analysis tools chosen. Potential bias generated through sampling strategy was clearly identified and addressed. Cultural considerations were also taken into account, with ethical considerations highlighted. Such thorough explanations of the methodology, whilst lengthy, were greatly beneficial in helping to reveal the research logic and rigour. Strong examples from type III studies include Underhill (2007) and Hargreaves et al. (2008), which both provided very clear inclusion/exclusion criteria and justification for these.

Table 4.3 Methodological approach by document type

Type of document	Quantitative data	Qualitative	Combined methodologies	Total
Type I	29	17	11	57
Type II	31	2	4	37
Total	60	19	15	94

As evident from Table 4.3, almost two-thirds (n=60) of the studies based on primary data employed quantitative methods to establish their findings. This was mainly achieved through structured interviews or self-completed questionnaires. The majority of evidence available is therefore statistical rather than descriptive in nature. Within the smaller group of studies based on purely qualitative methods, only one was awarded the full six marks for methodological rigour (Visser, 2006). Overall marks for qualitative based studies for methodology were weaker in comparison to studies taking a quantitative approach, due to less apparent attention being given to this section of the report when compared to emphasis on analysis of findings. This resulted in weaker consideration of methods to reduce bias in data analysis, and missing details about participant identification. These findings may reflect less clearly defined good practice approaches to undertaking rigorous qualitative methodology, or that taking such an approach presents greater challenges for research teams.

Sixteen percent (n=15) of all studies employed combined methodologies, drawing on both quantitative and qualitative tools. It is interesting to note that three out of the total eight studies awarded overall maximum points came from within this group of 15. Due to the small numbers of studies employing mixed methodology approaches, it is not possible to establish whether they systematically produced more rigorous studies, but observations made by the review team noted that these studies benefitted from having the breadth necessary to establish statistically significant patterns, whilst also delivering the depth required to explain for these patterns. For example, Visser-Valfrey's 2004 study on the willingness of teachers to communicate about HIV and AIDS in Mozambique used focus group discussions with 52 teachers to help establish the main issues to be explored further, as well as to help identify key variables for the quantitative data collection phase. They were also drawn on later to illuminate the discussion of findings from the survey, highlighting apparent contradictions and similarities in patterns.

Analysis

Within the documents assessed, analysis of evidence was the most consistently well-addressed section of the reports, as judged by the assessment criteria. Only three studies failed to achieve at least a 'satisfactory' standard (Bhana, 2008; El-Gadi et al., 2008; Turhan et al., 2006) and sixty studies (55 per cent) provided 'comprehensive' analysis of their findings. Whilst this 55 per cent met all the criteria established for the assessment, it was noted by assessors that findings were inconsistently disaggregated by available socio-demographic information. Although gender was understood to be a significant factor in HIV risk by authors, it was frequently addressed only briefly or ignored within analysis sections. This is despite data being collected for males and females and therefore being available to be disaggregated. An example of this is in James et al.'s (2006) experimental evaluation of the impact of a life skills programme in KwaZulu-Natal. Socio-demographic data for the students was collected and clearly presented in a table showing gender, age and a number of ethnic and religious categories. However, results were all presented in the aggregate, referring to 'students'. Whilst it is possible that there were no statistically significant variables found in relation to age or gender, this in itself would be an interesting finding to have identified. The lack of analysis in this report is particularly disappointing considering the rigour of the study otherwise. Whilst systematic recording of the analysis of gender and other cross-cutting factors was beyond the scope of this assessment, these tentative observations suggest that there may be considerable amounts of contextual data being collected but not being sufficiently analysed. As a result, conclusions and recommendations linked to these cross-cutting factors are not being made.

Marks were not awarded for clarity of visual tools or style of language used in explaining results. However, the review team commented that in a number of studies, overly scientific statistical descriptions tended to obscure findings for lay readers. Below is an extract from the results of Stinnett et al. (2004, p. 215):

"The first analysis examined Course of Infection by Race / Ethnicity. There was a statistically significant multivariate main effect for Course of Infection ($F=6.90$, Wilks's lambda = .64, $p < .001$). The multivariate effects for Race / Ethnicity ($F=1.21$, Wilks's lambda = .96, $p>.05$) and for the interaction between Race / Ethnicity and Course of Infection ($F=1.24$, Wilks's lambda = .84, $p>.05$) were not significant."

The article's supporting tables, rather than illuminating patterns, listed results without supporting explanation. While this example reflects the style used in many results sections, some studies took more care to rephrase key findings in the discussion and conclusion sections. Studies that were not published in academic journals, such as Biddlecom et al. (2007) and Boler (2003), were much more likely to use visual depictions of results, perhaps reflecting the desire to make findings relevant to a broader and less academic audience.

Conclusion

The conclusion criteria saw the fewest studies receiving top scores. Amongst 'strong' studies receiving 13 or 14 out of 15 points, the conclusion was the most consistent area where points were lost, suggesting that less importance is attached to this area by the authors. One example of where the conclusions did not live up to the purpose of report is Duflo et al. (2006), which highlighted in its introduction unanswered questions about scalable school-based HIV and AIDS education programmes and whether these offer an effective use of resources. The report presented findings on comparative impact and cost-effectiveness of three types of interventions in Kenya. However, its conclusion offered no recommendations or suggestions for further research. As a result, the report's potential to effect change or inform future policy and practice is significantly weakened.

While the above example demonstrates a report offering no recommendations, a more common weakness was the provision of vague or insufficiently supported recommendations. Below is an example of a typical conclusion, which only partially explores the relevance of findings to wider practice:

"Few individual level factors were associated with HIV infection emphasizing the importance of developing HIV prevention interventions that address structural and partner level risk factors such as keeping girls in school and interventions targeted at changing behaviours in men in the age-group with the highest prevalence of infection." (Pettifor et al., 2008, p. 1272)

In contrast, studies with strong conclusions were clear about the implications of their findings and relevance to wider research field (including awareness of limitations), and presented recommendations relevant to their intended audiences. Boler's 2003 study contains a good example of this. Summarized findings and recommendations were re-framed according to three identifiable themes: 'placing HIV/AIDS education in the context of the community', 'Silences in communicating on HIV/AIDS' and 'A wider crisis in Education'. The report dedicated four pages to recommendations, plus an executive summary of findings and recommendations, signalling to the reader that the outcomes of the report were deemed to be both significant and of importance to future practice and understanding. Kirby's updated review of sex education interventions in the UNESCO technical guidance on sexuality education (2009) provides another strong example of a comprehensive and accessible conclusion. Results are first summarized and then applied to past findings on characteristics of effective sexuality education programmes. The recommendations are of good practice in educational institutions based on common findings in this and past research.

5. Discussion

5.1 Regional bias and gaps

One of the clearest findings is the weighting of evidence to the geographical region of Africa, and even more specifically South Africa, suggesting an imbalance in knowledge regarding both the need for education and its impact within different epidemic settings. However, it could be argued that this is an appropriate imbalance, given that southern Africa lies at the epicentre of the AIDS epidemic.

The findings also show that the evidence base relies heavily on the use of indicators or proxy measures for the impact of education on HIV prevalence, with only 8 per cent (n=9) basing findings from biological data (such as HIV and sexually transmitted infection (STI) testing and rates of teenage pregnancy). Use of knowledge, attitudes and practices (almost entirely self-reported) to measure impact of education programmes may be problematic for the evidence base in the long term. The complex relationship between HIV and AIDS KAP and HIV prevalence may not prove to be a strong enough link to demonstrate the impact of education. For example, authors such as Plummer (2008, which was not reviewed in this assessment as did not fit inclusion criteria) argue that focusing on individual behaviour changes is insufficient in the face of socially embedded vulnerabilities. He argues that research only measuring this will not be enough to gauge long-term sustainable impact. There were, however, a few examples of studies attempting to test alternative methodologies: the longitudinal studies that map education levels against HIV prevalence (Hargreaves et al., 2008; Johnson, 2009) perhaps offer the most convincing evidence that education has a role to play in reducing the risk of HIV. These quantitative studies, designed to draw out patterns from large volumes of data, are unable to offer any insights as to the processes behind the patterns. As a result, whilst they can show that education is effective, they cannot further understanding of *what* makes it effective, or how to make it more so

The observation that gendered findings are not being consistently presented or analysed in the studies/documents, even where data has been collected, is problematic. This is of particular relevance in terms of informing policy and programmes, since this may then lead to neglecting gender implications in their design. Whilst it is not possible to provide conclusive results on this issue here, these observations suggest that further research is necessary in order to fully assess the quality of gender sensitive methodology and analysis taking place.

5.2 Implications of predominant methodological approaches

Within the category of intervention evaluation, nearly 50 per cent (n=19) of studies were marked as being strong in all areas. While this could be taken as evidence of the high quality of evidence available, it may also suggest that the criteria being employed did not sufficiently differentiate between the rigour of studies. One way this could have been achieved would have been through weighting the methodological tools employed, for example, by allocating more points for 'experimental' methods over 'pre-post test trials without control group'. While this was beyond the scope of this study, this may have revealed further insights as to the quality of evidence available. One such framework that ranks evidence strength based on methodological rigour are the 'levels of evidence', as identified by the Australian College of General Practitioners, where Cochrane reviews are at the top (considered the most rigorous evidence), and descriptive quantitative and qualitative studies considered the least strong (Quality Assurance Project, 2008).

While this study did not go into such depth, it did weight studies more strongly by

methodological rigour and as a result disproportionately penalised studies with less rigorous methodologies. Although the high numbers of quantitative studies may have helped to increase overall scores for methodological rigour, this in turn may be responsible for reducing the quality of evidence in other ways. For instance, the use of surveys means that findings are limited to pre-established categories and variables, and are not able to explain unexpected patterns. It could be argued that the employment of rigorous 'experimental' methodology comes at the expense of contextual depth and potentially the originality of findings presented. Consistency in issues being addressed (i.e. the knowledge, attitudes and practice of learners), whilst helpful for comparing findings in meta-reviews, may be limiting the range of evidence being produced overall.

5.3 Communicating evidence to right audience

A related concern is the weaknesses found in the concluding sections of reports, where findings have not been adequately translated into applicable and practical recommendations. In only a handful of cases were findings related directly to policy and programmes, raising concerns that potentially useful evidence is being lost or overlooked. As noted earlier, 96 studies (88 per cent) were located in journals. Although the peer-review process associated with journals ensures a level of quality control across the evidence base, it does raise questions as to the accessibility of findings to a wide audience. Sources such as the HIV and AIDS Clearinghouse and ERIC have helped to centralise and increase the availability of research, to a certain extent bridging the gap between the scientific community and policymakers. Nevertheless, for many studies, access to a wide range of journals is required, thereby putting them out of the range of anyone working outside an academic setting. This has implications for decisions being made by policymakers and programme managers who may not have access to the best quality studies. Only a handful of studies, such as Biddlecom et al. (2007), explicitly identify the audience they intend to reach with their findings. This suggests that ways of communicating and disseminating findings to different audiences are often not sufficiently taken into account. Such activities are critical to encouraging use, replication and scale-up of findings.

Throughout this discussion questions of research impact have been brought up in relation to relevance of methodological tools, provision of relevant and targeted recommendations and modes of communicating findings. Although beyond the scope of this study, a next stage of research would be to identify the impact of these studies, potentially comparing rigour against studies' effectiveness in prompting or supporting changes in thinking and practice. Key issues to be addressed through this would also be whether studies are answering the questions that policymakers and programme designers want answering, and whether there are identifiable characteristics of studies successful in influencing policy, programming or further research. While case studies and vignettes were excluded from this assessment, it would be interesting to include them in such an assessment, to see whether their more personal approach, although less rigorous in methodology, is more effective in communicating ideas and issues.

This potential gap between research and practice is not a unique finding. Over the past few years, a considerable body of work has been produced exploring how research influences policy and programmes. ODI's Research and Policy in Development (RAPID) department has developed a number of tools designed to support effective communication of research and how to make the production of evidence more applicable to practitioners and policymakers (Young and Mendizabal, 2009).

6. Recommendations and conclusions

Overall the findings of this report show that there is a considerable wealth of good quality evidence available supporting both the need for education and its impact on HIV and AIDS KAP goals. However, there are still gaps that need to be addressed and weaknesses to be challenged. This section is divided into four parts: the first three summarise key findings and make tentative recommendations for strengthening future research into the impact of education on HIV and AIDS. The fourth section then considers what this study has achieved and where further inquiry and analysis is necessary.

6.1 Focus of studies

Evidence is strongly weighted to Africa, and in particular South Africa, with limited evidence addressing the situation in lower prevalence and concentrated epidemic settings. There are many more studies focusing on the identification of challenges or needs for HIV and AIDS education than there are evaluating the impact of interventions. Within intervention evaluations, there is also a gap in studies addressing factors that affect successful implementation, such as teacher training, access to related services through schools and community, or parental attitudes to HIV and AIDS education.

Recommendations

- New research should consider focusing on less well represented epidemic settings.
- Intervention evaluations should consider factors related to successful outcomes – particularly teacher training, access to services through schools.
- More attention should be given to intended outcomes of the study from the outset and, where possible, an identifiable audience for the study.

6.2 Methodological rigour

There is a strong reliance on proxy measures of impact, particularly the use of KAP surveys that capture reported behaviours over short periods of time. Current evidence may not be sufficiently capturing the sustainability of changes being made. Studies employing qualitative methods are consistently less rigorous in their approach when compared to statistically driven methods. However, examples of mixed-methodology designs combining statistical rigour with descriptive depth suggest an effective way forward.

Recommendations

- There should not be an over-reliance on short-term KAP indicators; instead, impact should be captured over longer timeframes and, where ethical considerations permit, incorporating biological outcome measures should be considered.
- Research that has the capacity to measure broader social change and not just change at the individual level should be developed.
- Methodological rigour of qualitative research in this area should be strengthened by clearly identifying rigour standards and promoting good practice.
- Use of mixed methodologies to help target research and enhance understanding of findings should be considered.

6.3 Presentation of findings and analysis

Analysis is strong, according to the standards set by this assessment. However, at times it was observed that clarity was lost, especially for lay readers, due to the use of scientific language to describe findings. Inconsistent analysis of gender and other cross-cutting themes suggests that the full implications of gender on need and intervention effectiveness may be overlooked, reducing the evidence available to inform appropriate programming and policy as a result.

Recommendations

- Key findings and outcomes should be expressed clearly, with supporting visual information.
- Where gender and other key socio-demographic and context-related data is collected as part of the research, the implications for findings and recommendations should be fully explored.

6.4 Recommendations, targeting and communication of evidence

Lack of attention to summarising findings and providing recommendations within concluding sections reduces clarity for the reader regarding the implications of the research. In addition, weak targeting and lack of awareness of audience may be creating a gap between research findings and actions to be taken.

Recommendations

- Adequate attention should be given to concluding sections of reports, ensuring recommendations and key findings are clearly made and presented in a manner that is relevant to the intended audience.
- Outputs of studies should be targeted appropriately, e.g. policymakers do not have time to read long reports, need for short succinct documents.
- Appropriate communication and dissemination plans should be included in studies.

6.5 Implications for further research into assessing quality and impact of evidence

Through a process of systematic assessment, this study has succeeded in indicating a number of areas where current research is performing well and where greater attention may be required. It thus offers a useful system by which future research can be measured and strengthened. However, it has also succeeded in revealing a range of more complex issues, unanswered within the confines of this process, as to the relationship between quality research and impact on policy and programming, and how attention to cross-cutting issues such as gender, age and cultural context can be assessed.

Three areas in particular have emerged as requiring further research and analysis:

- Current levels of gender sensitivity within research methodology and analysis of findings within this thematic area.

- The impact of studies on policy, programming and further research, with a view to identifying characteristics of research that stimulates or enables change.
- Effective communication methods for sharing evidence and new learning.

References

Non-assessed documents referred to in text

- Kelly, M. J. (2006). *The potential contribution of schooling to rolling back HIV and AIDS*. Commonwealth Youth Development, University of South Africa.
- Plummer, D. (2008). *How risk and vulnerability become 'socially embedded': insights into the resilient gap between HIV awareness and safety in the Caribbean*.
- Quality Assurance Project et al. (2008). *The evidence base for programming for children in low prevalence and concentrated epidemic countries*. UNICEF.
- Young, J. and Mendizabal, E. (2009). *Helping researchers become policy entrepreneurs*. Briefing Paper 53. London: Overseas Development Institute (ODI).
- UNAIDS IATT on Education. (2008). *Improving the education response to HIV and AIDS: lessons of partner efforts in coordination, harmonisation, alignment, information sharing and monitoring in Jamaica, Kenya, Thailand and Zambia*. Paris: UNESCO.

Assessed documents

- Adamchak, S. (2005). *Findings of a survey of teachers: Strengthening HIV/AIDS partners in Education SHAPE 2*. World Education Teacher KAP Baseline Report. World Education Ghana.
- Ahmed, N. et al. (2006). Process evaluation of the teacher training for an AIDS prevention programme. *Health Education Research*, 21(5), 621–32.
- Amadi-Ihunwo, U. (2008). School managers' understanding of HIV/AIDS in Gauteng, South Africa. *African Journal of AIDS Research*, 7(3), 249–57.
- Andersson, N. et al. (2004). National cross sectional study of views on sexual violence and risk of HIV infection and AIDS among South African school pupils. *British Medical Journal*, 329 (7472), 952–54A.
- Aten, M. et al. (2002). Keeping middle school students abstinent: Outcomes of a primary prevention intervention. *Journal of Adolescent Health*, 31(1), 70–78.
- Avina, J. and O'Connell, K. (2006). Russian science teachers' knowledge of HIV/AIDS: Implications for teacher training. *International Electronic Journal of Health Education*, 9, 180–191.
- Badcock-Walters, P. J., Kelly, M. and Görgens-Albino, M. (2004). *Does knowledge equal change?: HIV and AIDS education and behaviour change*. Background Paper prepared for the Education For All Global Monitoring Report 2005: The Quality Imperative. UNESCO.
- Baker, D., Collins, J. and Leon, J. (2009). Risk factor or social vaccine? The historical progression of the role of education in HIV and AIDS infection in sub-Saharan Africa. *Prospects*, 38(4), 148.
- Bankola, A., Neema, O. and Konyani, S. (2007). Knowledge of correct condom use among adolescents in sub-Saharan Africa. *African Journal of Reproductive Health*, 11(3), 197–220.
- Bastien, S. (2008). Out-of-school and 'at risk'? Socio-demographic characteristics, AIDS knowledge and risk perception among young people in Northern Tanzania. *International Journal of Educational Development*, 28(4), 393–404.
- Bhana, D. (2007). The price of innocence: Teachers, gender, childhood sexuality, HIV and AIDS in early schooling. *International Journal of Inclusive Education*, 11(4), 431–44.
- (2008). Discourses of childhood innocence in primary school HIV/AIDS education in South Africa. *African Journal of AIDS Research*, 7(1), 149–58.
- (2009). 'They've got all the knowledge': HIV education, gender and sexuality in South African primary schools. *British Journal of Sociology of Education*, 30(2), 165–77.
- Biddlecom, A. et al. (2007). *Protecting the next generation in sub-Saharan Africa: Learning from adolescents to prevent HIV and unintended pregnancy*. Guttmacher Institute.

- Birdthistle, I. et al. (2009). Is education the link between orphanhood and HIV/HSV-2 risk among female adolescents in urban Zimbabwe? *Social Science and Medicine*, 68, 1810–18.
- Boler, T. et al. (2003). The sound of silence – difficulties in communicating on HIV/AIDS in school. London: ActionAid.
- Borgia, P. et al. (2005). Is peer education the best approach for HIV prevention in schools? Findings from a randomized controlled trial. *Journal of Adolescent Health*, 36(6), 508–16.
- Bruckner, H. and Bearman, P. (2005). After the promise: the STD consequences of adolescent virginity pledges. *Journal of Adolescent Health*, 36, 271–78.
- Buthelezi, T. et al. (2007). Youth voices about sex and AIDS: implications for life skills education through the 'Learning Together' project in KwaZulu-Natal, South Africa. *International Journal of Inclusive Education*, 11(4), 445–49.
- Campbell, C. and MacPhail, C. (2002). Peer education, gender and the development of critical consciousness: participatory HIV prevention by South African youth. *Social Science & Medicine*, 55(2), 331–45.
- Castle, S. (2004). Rural children's attitudes to people with HIV/AIDS in Mali: the causes of stigma. *Culture, Health & Sexuality*, 6(1), 1–18.
- Chao, L., Gow, J., Akintola, O., Pauly, M. (2007). Perceptions of community HIV prevalence, own HIV infection, and condom use among teachers in KwaZulu-Natal, South Africa. *AIDS and Behavior*, 11(3), 453–462.
- Cheng, Y. et al. (2008). Effectiveness of a school-based AIDS education program among rural students in HIV high epidemic area of China. *Journal of Adolescent Health*, 42(2), 184–91.
- Chifunye, T., Benoy, H. and Mukiibi, B. (2002). An impact evaluation of student teacher training in HIV/AIDS education in Zimbabwe. *Evaluation and Programme Planning*, 25(4), 377–85.
- Dawson, L. J. et al. (2001). The role of academic discipline and gender in high school teachers' AIDS-related knowledge and attitudes. *Journal of School Health*, 71(1), 3–8.
- Di Noia, J. and Schinke, S. (2007). Gender-specific HIV prevention with urban early-adolescent girls: Outcomes of the 'Keepin' It Safe Program'. *AIDS Education and Prevention*, 19(6), 479–88.
- Duflo, E. et al. (2006). Education and HIV/AIDS prevention: Evidence from a randomized evaluation in Western Kenya – Background paper to the 2007 World Development Report. The World Bank.
- Dupas, P. (2009). *Do teenagers respond to HIV risk information? Evidence from a field experiment in Kenya. NBER Working Paper No. 14707*. National Bureau of Economic Research (Working Paper No. 147078).
- El-Gadi, S, Abudher, A. and Sammud, M. (2008). HIV-related knowledge and stigma among high school students in Libya. *International Journal of STD and AIDS*, 19(3), 178–83.
- Fiscian, S. et al. (2009). Adapting a multifaceted U.S. HIV prevention education program for girls in Ghana. *AIDS Education and Prevention*, 21(1), 67–79.
- Francis, D. and Rimmensberger, N. (2008). Between the cracks: out-of-school youth and discourses of HIV/AIDS. *South African Journal of Psychology*, 38(4), 603–13.
- Gallant, M. and Maticka-Tyndale, E. (2004). School-based HIV prevention programmes for African youth. *Social Science and Medicine*, 58, 1337–51.
- Ganczak, M. et al. (2007). Break the silence: HIV/AIDS knowledge, attitudes, and educational needs among Arab university students in United Arab Emirates. *J Adolesc Health*, 40(6), 572. e1–e8.
- Geary, C. W. et al. (2008). Personal involvement of young people in HIV prevention campaign messages: The role of message format, culture, and gender. *Health Education & Behavior*, 35(2), 190–206.
- Ghabili, K., Shoja, M. and Kamran, P. (2008). The Iranian female high school students' attitude towards people with HIV/AIDS: a cross-sectional study. *AIDS Research and Therapy*, 5(15).
- Glik, D. et al. (2002). Youth performing arts entertainment-education for HIV/AIDS prevention and health promotion: Practice and research. *Journal of Health Communication*, 7(1), 39–57.
- Gordon, P. (2007). *Review of sex, relationships and HIV education in schools*. Global Advisory Group

Meeting on HIV and Sex Education. UNESCO, Paris.

- Gregson, S. et al. (2004). Community group participation: Can it help young women to avoid HIV? An exploratory study of social capital and school education in rural Zimbabwe. *Social Science & Medicine*, 58(11), 2119–32.
- Halpern, C. T. et al. (2008). Effectiveness of web-based education on Kenyan and Brazilian adolescents' knowledge about HIV/AIDS, abortion law, and emergency contraception: Findings from TeenWeb. *Social Science and Medicine*, 67(4), 628–37.
- Hargreaves, J. and Boler, T. (2006). *Girl power – The impact of girls' education on HIV and sexual behaviour*. London: ActionAid.
- Hargreaves, J, et al. (2008). Systematic review exploring time trends in the association between educational attainment and risk of HIV infection in sub-Saharan Africa. *AIDS*, 22(3), 403–14.
- Helleve, A. et al. (2009). South African teachers' reflections on the impact of culture on their teaching of sexuality and HIV/AIDS. *Culture, Health & Sexuality*. 11(2), 189–204.
- Huang, H. et al. (2008). Study on peer-led school-based HIV/AIDS prevention among youths in a medium-sized city in China. *International Journal of STD & AIDS*. 19(5), 342–46.
- Jacob, W. J. et al. (2007). HIV/AIDS education: What African youth say is effective. *Families in Society*, 88(1), 104–14.
- James, S. et al. (2006). The impact of an HIV and AIDS life skills program on secondary school students in KwaZulu-Natal, South Africa. *AIDS Education and Prevention*, 18(4), 281–94.
- Jewkes, R. et al. (2008). Impact of Stepping Stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial. *British Medical Journal*, 337 a506.
- Johnson, L. et al. (2009). The effect of educational attainment and other factors on HIV risk in South African women: results from antenatal surveillance, 2000–2005. *AIDS*, 23(12), 1583–88.
- Jukes, M. and Desai, K. (2005). Education and HIV/AIDS. *Background paper for 2006 EFA Global Monitoring Report*.
- Kabiru, C. W. and Ezeh, A. (2007). Factors associated with sexual abstinence among adolescents in four sub-Saharan African countries. *African Journal of Reproductive Health*, 11[3]:111-132
- Kachingwe, S. I. et al. (2005). Preparing teachers as HIV/AIDS prevention leaders in Malawi: Evidence from focus groups. *International Electronic Journal of Health Education*, 8, 193–204.
- Keselman, A. et al. (2007). Fostering conceptual change and critical reasoning about HIV and AIDS. *Journal of Research in Science Teaching*, 44(6), 844–63.
- Kim, C. R. and Free, C. (2008). Recent evaluations of the peer-led approach in adolescent sexual health education: A systematic review. *International Family Planning Perspectives*, 34(2), 89–96.
- Kiragu, K., Murungaru, K., Changu, M. and Mackenzie, C. (2006). Teachers matter: Baseline findings on the HIV-related needs of Kenyan teachers. *Horizons Research Update*.
- Kirby, D. (2008). The impact of abstinence and comprehensive sex and STD/HIV education programs on adolescent sexual behavior. *Sexuality Research and Social Policy*, 5(3), 18–27.
- Kirby, D. (2009). 'The evidence base for sexuality education,' in UNESCO, *The International Technical Guidance on Sexuality Education*.
- Kirby, D. et al. (2004). The 'Safer choices' intervention: Its impact on the sexual behaviors of different subgroups of high school students. *Journal of Adolescent Health*, 35(6), 442–52.
- Kirby, D., Laris, B. and Roller, L. (2006). Sex and HIV education programs for youth: Their impact and important characteristics. Family Health International.
- Kohler, P. K., Manhart, L. E. and Lafferty, W. E. (2008). Abstinence-only and comprehensive sex education and the initiation of sexual activity and teen pregnancy. *Journal of Adolescent Health*, 42(4), 335–44.
- Lakhanpal, M. and Ram, R. (2008). Educational attainment and HIV/AIDS prevalence: A cross-country study. *Economics of Education Review*, 27(1), 14–21.
- Lal, P. et al. (2008). A study of awareness about HIV/AIDS among senior secondary school children of Delhi.

- Indian Journal of Community Medicine*, 33(3), 190–92.
- Lal, S. S. et al. (2000). Knowledge and attitude of college students in Kerala towards HIV/AIDS, sexually transmitted diseases and sexuality. *National Medical Journal of India*, 13(5), 231–36.
- Masters, N. T. et al. (2008). The opposite of sex? Adolescents' thoughts about abstinence and sex, and their sexual behaviour. *Perspectives on Sexual and Reproductive Health*, 40(2), 87–93.
- Mathews, C. et al. (2006). Factors associated with teachers' implementation of HIV/AIDS education in secondary schools in Cape Town, South Africa. *AIDS Care*, 18(4).
- Maticka-Tyndale, E. et al. (2005). The sexual scripts of Kenyan youth and HIV Prevention. *Culture, Health and Sexuality*, 7, 27–41.
- Maticka-Tyndale, E., Wildish, J. and Gichuru, M. (2007) Quasi-experimental evaluation of a national primary school HIV intervention in Kenya. *Evaluation and Program Planning*, 30 (2), 172–86.
- Mazloomi, S. and Baghianimoghadam, M. (2008). Knowledge and attitude about HIV/AIDS of schoolteachers in Yazd, Islamic Republic of Iran. *East Mediterr Health J*, 14(2), 292–97.
- McGinty, S. and Mundy, K. (2009). HIV/AIDS educators: The challenges and issues for Namibian bachelor of education students. *Teaching and Teacher Education: An International Journal of Research and Studies*, 25(1), 141–48.
- McManus, A. and Dhar, L. (2008). Study of knowledge, perception and attitude of adolescent girls towards STIs/HIV, safer sex and sex education: (A cross sectional survey of urban adolescent schoolgirls in South Delhi, India). *BMC Women's Health*, 8(12).
- Merakou, K. and Kourea-Kremastinou, J. (2006). Peer education in HIV prevention: an evaluation in schools. *European Journal of Public Health*, 16(2), 128–32.
- Middelkoop, K. et al. (2006). Design and evaluation of a drama-based intervention to promote voluntary counselling and HIV testing in a South African community. *Sexually Transmitted Diseases*, 33(8), 524–26.
- Miller, A. N. et al. (2008). An outcome assessment of an ABC-based HIV peer education intervention among Kenyan university students. *Journal of Health Communication*, 13(4), 345–56.
- Mturi, A. J. and Hennink, M. M. (2005). Perceptions of sex education for young people in Lesotho. *Health and Sexuality*, 7(2), 129–44.
- Mufune, P. (2008). Stakeholder perceptions and attitudes towards sexual and reproductive health education in Namibia. *Sex Education: Sexuality, Society and Learning*, 8(2), 145–57.
- Njue, C. et al. (2009). 'If you don't abstain, you will die of AIDS'. AIDS Education in Kenya Public Schools. *AIDS Education and Prevention*, 21(2), 169–79.
- Norr, K., Tlou, S. and Moeti, M. (2004). Impact of peer group education on HIV prevention among women in Botswana. *Health Care Women Int*, 25(3), 210–26.
- Norr, K. F. et al. (2007). Short-term effects of a peer group intervention for HIV prevention among trainee teachers in Malawi. *African Journal of AIDS Research*, 6(3), 239–49.
- O'Leary, A. et al. (2007). Association between exposure to an HIV story line in The Bold and the Beautiful and HIV-related stigma in Botswana. *AIDS Education and Prevention*, 19(3), 209–17.
- Oshi, D. C., Nakalema, S. and Oshi, L. L. (2005). Cultural and social aspects of HIV/AIDS sex education in secondary schools in Nigeria. *Journal of Biosocial Science*, 37(2), 175–83.
- Pettifor, A. E. et al. (2008). Keep them in school: the importance of education as a protective factor against HIV infection amongst young South African women. *International Journal of Epidemiology*, 37(6), 1266–73.
- Pick, S. et al. (2007). Communication as a protective factor: Evaluation of a life skills HIV/AIDS prevention program for Mexican elementary-school students. *AIDS Education and Prevention*, 19(5), 408–21.
- Popova, N. V. (2007). College students' attitudes toward people infected with HIV. *Russian Education & Society*, 49(4), 60–75.
- Quality Assurance Project, USAID Health Care Improvement Project, and UNICEF. (2008). *The evidence base for programming for children affected by HIV/AIDS in low prevalence and concentrated epidemic*

- countries. Published for UNICEF and the U.S. Agency for International Development by the USAID Health Care Improvement Project, University Research Co., LLC, Bethesda, MD.
- Raj, A. et al. (2007). Gender differences in associations between exposure to school HIV education and protective sexual behaviors and sexually transmitted disease/HIV diagnosis among high school students. *Sex Education: Sexuality, Society and Learning*, 7(2), 191–99.
- Ross, M. W. et al. (2006). Outcomes of project wall talk: an HIV/AIDS peer education program implemented within the Texas State Prison System. *AIDS Education and Prevention*, 18(6), 504–17.
- Santelli, J. (2006). Abstinence and abstinence-only education: A review of U.S. policies and programs, *Journal of Adolescent Health*, 38(1), 72–81.
- Smith, G. et al. (2003). HIV/AIDS school-based education in selected Asia-Pacific countries. *Sex Education*, 3(1), 3–21.
- Snelling, D. et al. HIV/AIDS knowledge, women's education, epidemic severity, and protective sexual behaviour in low- and middle- income countries. *Journal of Biosocial Science*, 39, 421–442.
- Stinnett, T. A., Cruce, M. K. and Choate, K. T. (2004). Influences on teacher education student attitudes toward youth who are HIV+. *Psychology in the Schools*, 41(2), 211–19.
- Tapia-Aguirre, V. et al. (2004). Associations among condom use, sexual behavior, and knowledge about HIV/AIDS. A study of 13,293 public school students. *Archives of Medical Research*, 35(4), 334–43.
- Thato, R., Jenkins, R. A. and Dusitsin, N. (2008). Effects of the culturally-sensitive comprehensive sex education programme among Thai secondary school students. *Journal of Advanced Nursing*.
- Turhan, E., Inandi, Y. and Inandi, T. (2006). Risk perception, knowledge and social distance of Turkish high school students about HIV/AIDS. *Journal of Public Health*, 28(2), 137–38.
- Underhill, K., Operario, D. and Montgomery, P. (2007). Systematic review of abstinence-plus HIV prevention programs in high-income countries. *Plos Medicine*, 4, 1471–85.
- UNAIDS IATT on Education. (2006). *Quality Education and HIV & AIDS*. UNESCO, Paris.
- UNICEF. (2006). *HIV and AIDS knowledge, attitudes, practices and behaviour (KAPB) study in Namibia: key findings*.
- Van Dyk, A. C. (2008). Perspectives of South African school children on HIV/AIDS, and the implications for education programmes. *African Journal of AIDS Research*, 7(1), 79–93.
- van Laren, L. (2007). Using metaphors for integrating HIV and AIDS education in mathematics curriculum in pre-service teacher education: An exploratory classroom study. *International Journal of Inclusive Education*, 11(4), 461–79.
- Vandemoortele, J. and Delamonica, E. (2000). The 'Education Vaccine' against HIV. *Current Issues in Comparative Education*, 3(1), 6–13.
- Vavrus, F. (2006). Girls' schooling in Tanzania: The key to HIV/AIDS prevention? *AIDS Care – Psychological and Socio-Medical Aspects of AIDS/HIV*, 18(8), 863–71.
- Visser-Valfrey, M. (2004). *The impact of individual differences on the willingness of teachers in Mozambique to communicate about HIV/AIDS in schools and communities*. Paper presented at the annual meeting of the International Communication Association, Dresden International Congress Centre, Dresden, Germany, Jun 16, 2006 Online <PDF>. 2010-03-04 <http://www.allacademic.com/meta/p91762_index.html>
- Visser, M. J. (2005). Life skills training as HIV/AIDS preventive strategy in secondary schools: evaluation of a large-scale implementation process. *Sahara J*, 2(1), 203–16.
- (2007). HIV/AIDS prevention through peer education and support in secondary schools in South Africa. *Sahara J*, 4(3), 678–94.
- Visser, R. (2006). *Communicating about HIV/AIDS: Attitude functions and willingness to talk about condoms and sexuality in Mozambique*. Annual meeting of the International Communication Association, Dresden International Congress Centre, Dresden.
- Vuttanont, U. et al. (2006). 'Smart boys' and 'sweet girls' – sex education needs in Thai teenagers: a mixed-method study. *Lancet*, 368(9552), 2068–80.

- Walcott, C. M., Meyers, A. B. and Landau, S. (2007). Adolescent sexual risk behaviors and school-based sexually transmitted infection/HIV prevention. *Psychology in the Schools*, 45(1), 39–51.
- Walker, D. et al. (2006). HIV prevention in Mexican schools: prospective randomised evaluation of intervention. *British Medical Journal*, 332(7551), 1189–94.
- Walque, D. (2007). *How does the impact of an HIV/AIDS information campaign vary with educational attainment? Evidence from rural Uganda*. *Journal of Development Economics* 84(2), 686–712 (2007)
- Wang, B. et al. (2005). The potential of comprehensive sex education in China: Findings from suburban Shanghai. *International Family Planning Perspectives*, 31(2), 63–72.
- Xiaoming, L. et al. (2008). Cultural adaptation of the focus on kids program for college students in China. *AIDS Education and Prevention*, 20(1), 1–14.
- Yankah, E. and Aggleton, P. (2008). Effects and effectiveness of life skills education for HIV prevention in young people. *AIDS Education and Prevention*, 20(6), 465–85.
- Yazdi, C. A. et al. (2006). Knowledge, attitudes and sources of information regarding HIV/AIDS in Iranian adolescents. *AIDS Care – Psychological and Socio-Medical Aspects of AIDS/HIV*, 18(8), 1004–10.
- Zhang, L., Li, X. and Shah, I. H. (2007). Where do Chinese adolescents obtain knowledge of sex? Implications for sex education in China. *Health Education*, 107(4), 351–63.
- Zhang, L. et al. (2008). Stigmatizing attitudes towards people living with HIV/AIDS among college students in China: Implications for HIV/AIDS education and prevention. *Health Education*, 108(2), 130–44.

Annex 1: Terms of reference

Background

A stocktaking exercise on research on HIV & AIDS and Education was undertaken in September 2008 by the Overseas Development Institute (ODI) to inform a meeting on research gaps and priorities for the UNAIDS Inter-Agency Task Team (IATT) on Education.

All members of the IATT, as well as the IATT working groups, were asked to respond to a set of questions, including identifying what research they had carried out, what relevant research they knew about, and what research they would like the IATT to prioritize.

The consultants received numerous responses and from them collated a list of documents (both grey literature and published materials) for review, as well as a list of current and future research interests of IATT members and working groups. In addition to the documents identified by the IATT members, the consultants undertook further searches, leading to an additional set of documents being included for review.³ In total, 133 documents were reviewed.

The report of the stocktaking exercise served as an introduction for consideration of the IATT's broader role in relation to the key gaps – in the use and dissemination of research and advocating for the gaps to be filled. It also assisted in narrowing down key issues that the IATT could consider commissioning research on, in light of the objectives and priorities of the IATT and its comparative advantage.

The outcomes of the stocktaking exercise were presented by the Consultant at the research meeting, by the following themes: knowledge, attitudes, practices and behaviours (KAPB); and behaviour change and the education sector; the learning environment; impact of HIV on education systems; policy response.

Participants agreed at the research meeting that ,while the report highlighted the existence of a substantial body of work on HIV and education, given the time constraints under which the report was completed, there was a sense that a large amount has yet to be 'mined' and included.

A recommendation was made to “finalize the stocktaking report commissioned for the meeting, by sending out another call for input and adding additional research suggested over the course of the research meeting.”

The fall IATT meeting decided that the stocktaking exercise should be updated and finalized; however, the scope of this revision was not discussed. Therefore, two options were presented for the IATT Steering Committee to consider:

- At a minimum, the Secretariat could go back to IATT members who did not respond, requesting their input, and to those who did respond, requesting specific additional input.
- At a maximum, the stocktaking exercise could be more comprehensive, with expanded terms of reference.

With the approval by the IATT Steering Committee for the second option, the work described in this document is expected to update the stocktaking exercise with additional in-depth analysis, so that the IATT can better identify the availability and gaps in the evidence base for advocating and programming education sector responses to HIV and AIDS.

Objectives

The specific objectives of this exercise are to:

³ Search sources included the UNESCO/IIEP HIV and AIDS Impact Clearinghouse, PubMed, Web of Science, Google Scholar and the Population Reporter Editor. In addition, informants knowledgeable on the sector were also contacted.

1. Collect, review, analyse and document evidence on the situation and impact of HIV and AIDS on the education sector and the evidence on the responses of the education sector to HIV and AIDS, building on the first draft already completed.
2. Summarize the extent of the evidence base, in terms of what is available and strong, available but weak and what is not available and needed in the evidence base for advocacy and programming education sector response to HIV and AIDS.

Activities & methodology

1. The Consultant is expected to prepare and submit to the IATT Secretariat a proposal defining the scope, structure, strategy and process for updating and completing the stocktaking exercise. The original thematic areas should be considered. Additional thematic areas may include, *inter alia*:
 - a. The HIV-related needs, vulnerability and risks of learners and educators of different types of education institutions at different levels.
 - b. The impact of HIV and AIDS on the education system (basic, secondary, tertiary; formal, non-formal).
 - c. The role of education in general in addressing immediate/behavioural, underlying and root factors that facilitate, drive or fuel the spread and impact of HIV.
 - d. The responses of the education sector to HIV and AIDS – progress and impact, challenges and lessons learnt – across basic, secondary, tertiary; formal and non-formal subsectors).
2. Map the existing annotated bibliography and identify preliminarily gaps.
3. Assist the IATT Secretariat to send out a call to IATT members for additional research to include in the report. This would include:
 - a. Asking IATT members to review the research gaps identified by the Consultant to determine whether these are: a) areas where insufficient research has been undertaken to date; or b) whether the Consultant was not able to ‘unearth’ appropriate studies. In the case of b) IATT members will be requested to recommend additional studies.
 - b. Requesting clarity on the initial input provided from IATT members for the September research meeting on research that they have undertaken or that is underway. This will also include a specific request to bilateral agencies to provide details on the research that they have funded or are currently funding, as many of them did not send in any information for the initial stocktaking exercise, noting that they don’t undertake research directly.
4. Undertake online searches of additional databases for the agreed thematic areas, prioritizing:
 - a. Peer-reviewed and published literature.
 - b. Literature produced by academia, governments, international and development organizations, and other non-commercially published sources.
 - c. Grey literature from key organizations in HIV & AIDS and education.
5. Summarize and report the findings, with accompanying discussion on the quality of information available. This should include reference to:
 - a. Findings with strong evidence – relevant to the kind of information needed and obtained rigorously and in accordance with widely accepted research practices.
 - b. Recurrent themes for which evidence is moderate – programme-relevant findings commonly asserted in the literature lacking sufficient empirical data to rule out competing explanations for attribution and causality.

- c. Gaps in knowledge for which evidence is weak or inexistent – either claimed by authors or identified gaps unearthed over the course of the analysis.
6. Present structure, methodology and preliminary findings at the Spring IATT Meeting in Limerick, Ireland.
7. Circulate a draft discussion paper based on the feedback from the Spring IATT Meeting, and finalize with additional input and suggestions from IATT members and the IATT Secretariat.

Deliverables

1. A proposal defining the scope, thematic areas, strategy and process for updating the stocktaking exercise by 15 May 2009.
2. Presentation at the IATT meeting in Limerick, Ireland on the structure of the analysis, methodology, and preliminary findings on 17 June.
3. Draft discussion paper to be shared with the IATT Secretariat for circulation to the IATT by 24 July, comments to be requested by 24 August. This paper should be 15–20 pages highlighting the key points of evidence available and not available in the existing research and related annexes with tables of studies consulted.
4. Final discussion paper to be completed by 7 September.

Annex 2: Assessment criteria

Criteria for assessing primary data situation assessments and intervention evaluation materials

	Points structure	Key elements to look for
Focus Maximum 3 points	<p>(0) Unfulfilled – not enough information to make a judgement.</p> <p>(1) Rudimentary – basic background information provided but missing more than one key aspect (info and consideration about pop, intervention, previous studies, outcomes).</p> <p>(2) Satisfactory – information on at least 3 elements but without great depth.</p> <p>(3) Comprehensive – all elements covered with sufficient depth, particularly with clear aims and outcomes for the work.</p>	Adequate information on <ul style="list-style-type: none"> • Population studied • Intervention or situation under observation • Previous studies/theory • Outcomes considered
Method Maximum 6 points (2 parts)	<p>Explanation of methods (0–3)</p> <p>Unfulfilled – not enough information to make a judgement.</p> <p>Rudimentary – methodology was addressed but only briefly without adequate detail.</p> <p>Satisfactory – information about methods of study supplied (largely descriptive).</p> <p>Comprehensive – rationale for choice of tools provided and limitations considered etc.</p> <p>Choice and suitability of tools (0–3)</p> <p>Unfulfilled – sampling not purposeful or of adequate size, approach not suited to question (or not enough information).</p> <p>Rudimentary – some relevant tools employed but without sophistication.</p> <p>Satisfactory – approach suited to question, most key elements considered.</p> <p>Comprehensive – tools employed cover all key elements and show sensitivity to the context.</p>	<ul style="list-style-type: none"> • Research methods were appropriate for question being asked • Study sampled selected in purposeful way • Adequate sample size, response rate and/or participation • Employed measures to minimize bias
Analysis Maximum 3 points	<p>(scored 0-3)</p> <p>Unfulfilled – not enough information to make a judgement (just results and no analysis, or analysis no results).</p> <p>Rudimentary – results presented with basic</p>	<ul style="list-style-type: none"> • Different sources of knowledge & understanding of the issue were explored • Used appropriate qual/quant analytical tools

	<p>analysis, without use of analytical tools (qual/quant) or awareness of bias factors.</p> <p>Satisfactory – clear results with good analysis (may not take into account wide range of influencing factors or account for gender sufficiently).</p> <p>Comprehensive – thorough reporting of results disaggregated and analysed by range of relevant factors. Employing measures to account for bias etc.</p>	<ul style="list-style-type: none"> • Employed measures to account for bias • Thorough reporting of key findings and results
<p>Conclusions</p> <p>Maximum 3 points</p>	<p>Unfulfilled – not enough information to make a judgement – no conclusions made or only weakly based on evidence.</p> <p>Rudimentary – basic conclusions made based on evidence, little consideration of implications or limitations.</p> <p>Satisfactory – more robust conclusions, some consideration of limitations and implications.</p> <p>Comprehensive – strong conclusions with considerable consideration of limitations and implications plus clear identification of areas for further study.</p>	<ul style="list-style-type: none"> • Sufficient evidence to justify relationship between evidence and conclusion • Discussion of study implications for policy or programming • Discussion of study limitations • Identified areas for further research

0–4 points = very weak

5–8 points = contains significant weaknesses

9–12 points = strong in parts

13–15 points = strong in all areas

Criteria for assessing secondary data situation assessments and intervention evaluation materials

	Points structure	Key elements to look for
<p>Focus</p> <p>Maximum 3 points</p>	<p>(0) Unfulfilled – not enough information to make a judgement.</p> <p>(1) Rudimentary – basic background information provided but missing more than one key element.</p> <p>(2) Satisfactory – information on at least 2 elements but largely descriptive with shallow analysis.</p> <p>(3) Comprehensive – all elements covered with sufficient depth (likely to mention target audience and intended outcomes of research).</p>	<p>Adequate information on</p> <ul style="list-style-type: none"> • Purpose of the review and/or rationale of the study • Research question to be answered • Previous data or theory on study population, context or issue of study
<p>Method</p> <p>Maximum 6 points (2 parts)</p>	<p>Explanation of methods (0–3)</p> <p>Unfulfilled – not enough information to make a judgement.</p> <p>Rudimentary – methodology was addressed but only briefly without adequate detail.</p> <p>Satisfactory – information about methods supplied but largely descriptive without critical analysis of approach.</p> <p>Comprehensive – detailed rationale for methodology provided with consideration of limitations etc.</p> <p>Choice and suitability of tools (0–3)</p> <p>unfulfilled– choice and range of materials reviewed inadequate and assessment unsystematic.</p> <p>Rudimentary – some key elements included but still basic in approach.</p> <p>Satisfactory – most key elements considered and approach suited to question.</p> <p>Comprehensive – all key elements taken into account using a strongly systematic approach.</p>	<ul style="list-style-type: none"> • Search of review materials was taken from multiple sources • Specified inclusion and exclusion criteria to reduce biased sampling • Methodology was carried out systematically • Included published and unpublished literature • Appears to represent an exhaustive collection of materials

<p>Analysis</p> <p>Maximum 3 points</p>	<p>(scored 0–3)</p> <p>Unfulfilled – not enough information to make a judgement.</p> <p>Rudimentary – results presented with basic analysis (may not have strong framework).</p> <p>Satisfactory – results presented using clear framework and most other key elements achieved.</p> <p>Comprehensive – thorough reporting of results with consideration of strength of results and potential biases within them.</p>	<ul style="list-style-type: none"> • Review examines multiple aspects of the issue across body of literature • Described analytical process and tools including framework for analysis • Thorough reporting of the results and key findings • Takes into account the strength of the evidence in information collected
<p>Conclusions</p> <p>Maximum 3 points</p>	<p>Unfulfilled – not enough information to make a judgment – no conclusions made or unrelated to evidence.</p> <p>Rudimentary – some conclusions made with basic links to evidence.</p> <p>Satisfactory – more robust conclusions presented substantiated by evidence with 2 further key elements addressed.</p> <p>Comprehensive – strong conclusions with critical consideration of all elements (if audience identified in focus, should be suited to them).</p>	<ul style="list-style-type: none"> • Reported findings are well substantiated by information presented • Discussion of study implications for policy or programming • Discussion of study limitations or biases, including contradictory findings • Identified areas for further research or review

0–4 points = very weak

5–8 points = contains significant weaknesses

9–12 points = strong in parts

13–15 = strong in all areas

Annex 3: Data table

Education and HIV Assessment Summary Table

1. Author	2. Title	3. Journal / Source	4. Regional grouping	5. Purpose of research	6. Source of evidence	7. Population group being studied	8. Factors assessed for HIV & AIDS disease	9. Factors assessed for HIV&AIDS education	10. Methodology type	11. Focus	12. Methodology - Explanation of Methods (i)	13. Methodology - Choice and suitability of tools (ii)	14. Analysis	15. Conclusion	16. Total score	17. Review code
Adamechak, S.	Findings of a survey of teachers: Strengthening HIV/AIDS Partners in Education (SHAPE 2) World Education	World Education Teacher KAP Baseline Report (2005)	A	a	a	b	a/b/c	a/b	a	1	2	3	3	3	12	MC# 15
Ahmed, N et al.	Process evaluation of the teacher training for an AIDS prevention programme	Health Education Research, 21(5), 621–32 (2006)	A	b	a	b	a	a/b	a	2	2	3	2	2	11	MC# 1
Amadi-Ihunwo, U.	School managers understanding of HIV/AIDS in Gauteng, South Africa	African Journal of AIDS Research, 7(3), 249–57 (2008)	A	a	a	b	a	a	b	2	2	3	2	1	10	MC# 2
Andersson, N. et al.	National cross sectional study of views on sexual violence and risk of HIV infection and AIDS among South African school pupils	British Medical Journal 23, (329) (2004)	A	a	a	a	a/b	X	a	1	2	3	3	2	11	MC# 13
Aten, M. J.	Keeping middle school students abstinent: Outcomes of a primary prevention intervention	Journal of Adolescent Health, 31(1), 70–78 (2002)	E N A	b	a	a	c	x	a	1	3	3	3	2	12	MC# 13
Avina, J. and O'Connell, K.	Russian science teachers' knowledge of HIV/AIDS: Implications for teacher training	International Electronic Journal of Health Education (9), 180–191 (2006)	E N A	a	a	b	a	a/b /c	a	2	2	2	2	2	10	MC# 4
Badcock-Walters, P. J., Kelly, M. J., Gorgens-Albino, M.	Does knowledge equal change? HIV and AIDS education and behaviour change	Background Paper prepared for the Education For All Global Monitoring Report 2005: The Quality Imperative (2004)	A	a	b	X	a/c	X	c	2	2	1	3	3	11	MC# 79
Baker, D. et al.	Risk factor or social vaccine? The historical progression of the role of education in HIV and AIDS infection in sub-Saharan Africa	Prospects, 38(4), 148	A	b	a / b	a	e	X	a	3	2	2	2	2	11	CO# 22
Bankola, A. et al.	Knowledge of correct condom use among adolescents in sub-Saharan Africa	African Journal of Reproductive Health, 11(3), 197–220 (2007)	A	a	a	a	a/c	X	a	2	3	3	3	2	13	MC# 50
Bastien, S.	Out-of-school and 'at risk'? Socio-demographic characteristics, AIDS knowledge and risk perception among young people in Northern Tanzania	International Journal of Education Development 28(4), 393-404 (2008)	A	a	a	a	a/c	X	a	2	3	3	3	3	14	MC# 18
Bhana, D.	They've got all the knowledge: HIV education, gender and sexuality in South African primary schools	British Journal of Sociology of Education, 30(2), 165–77 (2009)	A	a	a	b	X	c	b	2	1	1	2	1	7	CO# 26
Bhana, D.	Discourses of childhood innocence in primary school HIV/AIDS education	African Journal of AIDS Research, 7(1), 149	A	a	a	b	X	b/c	b	3	2	1	1	1	8	MC#

1. Author	2. Title	3. Journal / Source	4. Regional grouping	5. Purpose of research	6. Source of evidence	7. Population group being studied	8. Factors assessed for HIV & AIDS disease	9. Factors assessed for HIV&AIDS education	10. Methodology type	11. Focus	12. Methodology - Explanation of Methods (i)	13. Methodology - Choice and suitability of tools (ii)	14. Analysis	15. Conclusion	16. Total score	17. Review code
Bhana, D.	in South Africa The price of innocence: Teachers, gender, childhood sexuality, HIV and AIDS in early schooling	–58 (2008) International Journal of Inclusive Education, 11(4), 431–44 (2007)	A	a	a	b	X	b	b	2	1	1	2	1	7	51 CO# 14
Biddlecom, A. E. et al.	Protecting the next generation in sub-Saharan Africa: Learning from adolescents to prevent HIV and unintended pregnancy	Guttmacher Institute (2007) http://www.guttmacher.org/pubs/2007/12/12/PNG_monograph.pdf	A	a	a	a	a/b/c	b	a	3	2	3	3	3	1	4 7
Biddlecom, A.E., Hessburg, L., Singh, S., Bankole, A., Darabi, L.	Protecting the Next Generation in Sub Saharan Africa: Learning from adolescents to prevent HIV and unintended pregnancy	Guttmacher Institute http://www.guttmacher.org/pubs/2007/12/12/PNG_monograph.pdf	A	a	a	a	a/b/c	b	a	/						
Boler, T. et al.	The sound of silence - Difficulties in communicating on HIV/AIDS in school	ActionAid website (2003) (http://www.actionaid.org/docs/hivsoundofsilence.pdf)	G L	a	a	a/b/c /d	b/c	b/c	a	3	3	3	3	3	1	5 CO# 5
Borgia, P. et al.	Is peer education the best approach for HIV prevention in schools? Findings from a randomized controlled trial	Journal of Adolescent Health, 36(6), 508–16 (2005)	E N A	b	a	a	a/b/c	x	a	1	3	3	3	3	1	3 MC# 5
Bruckner, H. and Bearman, P.	After the promise: the STD consequences of adolescent virginity pledges	Journal of Adolescent Health, 36, 271–78 (2005)	E N A	b	a	a	e	X	a	1	3	3	3	2	1	2 MC# 52
Buthelezi, T. et al.	Youth voices about sex and AIDS: implications for life skills education through the ‘Learning Together’ project in KwaZulu-Natal, South Africa	International Journal of Inclusive Education, 11(4) 445–459 (2007)	A	a	a	a	a	b	b	2	1	1	2	1	7	MC# 53
Campbell, C. and MacPhail, C.	Peer education, gender and the development of critical consciousness: participatory HIV prevention by South African youth	Social Science & Medicine, 55(2), 331–45 (2002)	A	b	a	a	c	X	a	2	2	2	2	2	1	0 MC# 73
Castle, S.	Rural children’s attitude to people with HIV/AIDS in Mali: the causes of stigma	Culture Health & Sexuality, 6(1), 1–18 (2004)	A	a	a	a	X	X	b	2	2	2	2	2	1	0 MC# 19
Chao, L., Gow, J., Akintola, O., Pauly, M.	Perceptions of community HIV prevalence, own HIV Infection and condom use among teachers in KwaZulu-Natal, South Africa	AIDS and Behaviour, 11(3), 453–562 (2007)	A	b	a	b	a/b	X	a	1	2	2	3	3	1	1 MC# 6
Cheng, Y. et al.	Effectiveness of a school-based AIDS education program among rural students in HIV high epidemic area of China	Journal of Adolescent Health, 42(2), 184–191 (2008)	A P	a	a	a	a/b	x	a	2	2	3	3	2	1	2 MC# 7
Chifunyise, T. et al.	An impact evaluation of student teacher training in HIV/AIDS education in Zimbabwe	Evaluation and Programme Planning, 25(4), 377–385 (2002)	A	b	a	b	a/b	b	a	2	2	3	3	1	1	1 MC# 8
Dawson, L.J. et al. (2001)	The role of academic discipline and gender in high school teachers’ AIDS-related knowledge and attitudes	Journal of School Health, 71(1), 3–8	E N A	a	a	b	a/b	X	a	2	1	2	2	2	9	MC# 21
Di Noia, J. and Schinke, S.	Gender-specific HIV prevention with urban early-adolescent girls: Outcomes of the ‘Keepin’ It Safe Program’	AIDS Education and Prevention, 19(6), 479–88 (2007)	E N A	b	a	a	a/b/c	X	a	2	3	3	2	2	1	2 MC# 22
Duflo, E. et al.	Education and HIV/AIDS prevention: Evidence from a randomized evaluation in Western Kenya	Background Paper to the 2007 World Development Report (2006)	A	b	a	a	a/b/c /c	X	a	3	3	3	3	1	1	3 MC# 55

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Dupas, P.	Do teenagers respond to HIV risk information? Evidence from a field experiment in Kenya	National Bureau of Economic Research (Working Paper No. 147078) (2009)	A	b	a	a	c/e	X	a	3	3	3	3	2	14	MC# 73
El-Gadi, S., Abudher, A., Sammud, M.	HIV-related knowledge and stigma among high school students in Libya	International Journal of STD & AIDS, 19(3), 178–183 (2008)	A	a	a	a	a/b	X	a	2	2	2	1	1	8	CO# 8
Fiscian, S. et al.	Adapting a multifaceted US HIV prevention education program for girls in Ghana	AIDS Education and Prevention, 21(1), 67–79 (2009)	A	b	a	a	a/b/c	X	a	1	2	3	2	3	1	MC# 20
Francis, D. and Rimmensberger, N.	Between the cracks: Out of school youth and discourses of HIV/AIDS	South African Journal of Psychology, 38(4), 603–613 (2008)	A	b	a	a	a/b/c	X	b	2	2	1	2	1	8	MC# 10
Gallant, M. and Maticka-Tyndale, E.	School-based HIV prevention programmes for African youth	Social Science & Medicine, 58, 1337–51 (2004)	A	b	b	a	b/c	X	c	2	3	2	3	3	3	MC# 16
Ganczak, M. et al.	Break the silence: HIV/AIDS knowledge, attitudes and educational needs among Arab university Students in the United Arab Emirates	Journal of Adolescent Health, 40(6), 572.e1–e8 (2007)	A	a	a	a	a/b	x	b	1	2	2	2	3	1	MC# 9
Geary C.W. et al.	Personal involvement of young people in HIV prevention campaign messages: The role of message format, culture, and gender.	Health Education and Behaviour, 35 (2), 190–206 (2008)	G	b	a	a	b/c	X	b	3	3	2	3	2	1	MC# 75
Ghabili, K. et al.	The Iranian female high school students' attitude towards people with HIV/AIDS: a cross-sectional study	AIDS Research and Therapy, 5(15) (2008)	A	a	a	a	b	X	a	1	2	2	3	2	1	MC# 11
Glik, D. et al.	Youth performing arts entertainment-education for HIV/AIDS prevention and health promotion: Practice and research	Journal of Health Communication, 7(1), 39–57	E	a	a	a	a/c	x	a	3	2	2	2	2	1	MC# 76
Gordon, P.	Review of sex, relationships and HIV education in schools	Prepared for the first meeting of UNESCO's Global Advisory Group Meeting, 13–14 December 2007	G	a	b	X	a/b	X	c	3	2	2	3	3	1	MC# 80
Gregson, S. et al.	Community group participation: Can it help young women to avoid HIV? An explanatory study of social capital and school education in rural Zimbabwe	Social Science & Medicine, 58(11), 2119–2132 (2004)	A	a	a	x	a/c	X	a	3	3	2	2	2	1	MC# 12
Halpern, C.	Effectiveness of a web-based education on Kenyan and Brazilian adolescents' knowledge about HIV/AIDS, abortion law and emergency contraception: Findings from TeenWeb	Social Science & Medicine, 67(4), 628–637 (2008)	G	b	a	a	a/b	x	a	2	2	2	3	2	1	MC# 56
Hargreaves, J. et al.	Systematic review exploring time trends in the association between educational attainment and risk of HIV infection in sub-Saharan Africa	AIDS, 22(3), 403–14 (2008)	A	a	b	X	e	X	c	3	3	3	3	2	1	CO# 16
Hargreaves, J. and Boler, T.	Girl power – The impact of girls' education on HIV and sexual behaviour	ActionAid (2006)	A	a	b	a	c	X	c	3	3	2	3	3	1	MC# 81
Helleve, A. et al.	South African teachers' reflections on the impact of culture on their teaching of sexuality and HIV/AIDS	Culture, Health & Sexuality, 11(2), 189–204	A	a	a	b	a/c	b/c	b	2	2	2	2	3	1	MC# 14
Huang, H. et al.	Study on peer-led school based HIV/AIDS prevention among youths in a medium-sized city in China	International Journal of STD & AIDS, 19(5), 342–346 (2008)	A	b	a	a	a/b/c	X	a	2	2	3	3	2	1	MC# 17
Jacob, W.J. et al.	HIV/AIDS education: What African youth say is effective	Families in Society, 88(1), 104–14 (2007)	A	a	a	a	b	b/d	a	3	2	2	3	2	1	MC# 23

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James, S. et al.	The impact of an HIV and AIDS life skills program on secondary school students in KwaZulu-Natal, South Africa	AIDS Education and Prevention, 18(4), 281–94	A	b	a	a	a/b/c	X	a	3	3	3	2	2	13	CO# 18
Jewkes, R. et al.	Impact of Stepping Stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial	British Medical Journal, 337 a506	A	b	a	a	e	X	a	2	3	2	3	2	12	CO# 25
Johnson, L. et al.	The effect of educational attainment and other factors on HIV risk in South African women: results from antenatal surveillance, 2000–2005	AIDS, 23(12), 1583–88, 2009	A	a	a	x	e	X	a	3	2	3	3	3	14	CO# 29
Jukes, M. and Desai, K.	Education and HIV/AIDS	Background Paper for 2006 EFA Global Monitoring Report (2005)	A	a	b	a	c	X	c	2	0	0	3	2	7	MC# 82
Kabiru, C.W. and Ezeh, A.	Factors associated with sexual abstinence among adolescents in four sub-Saharan African countries	African Journal of Reproductive Health	A	a	a	a/b /c/d	c	X	a	3	3	3	3	13	11	CO# 10
Kachingwe, S. I. et al.	Preparing teachers as HIV/AIDS prevention leaders in Malawi: Evidence from focus groups	International Electronic Journal of Health Education (8), 193–204 (2005)	A	a	a	b	a/c	a/b	b	1	2	1	2	3	9	MC# 24
Keselman, A. et al.	Fostering conceptual change and critical reasoning about HIV and AIDS	Journal of Research in Science Teaching, 44(6), 844–63 (2007)	E N A	b	a	a	a/e	X	a	2	3	2	2	3	12	MC# 77
Kim, C.R. and Free, C.	Recent evaluations of the peer-led approach in adolescent sexual health education: A systematic review	International Family Planning Perspectives, 34(2), 89–96 (2008)	G L	a	b	a	c	X	c	2	2	2	2	2	10	MC# 83
Kiragu, K. et al.	Teachers matter: Baseline findings on the HIV-related needs of Kenyan teachers	Horizons Research Update (2006) www.popcouncil.org/pdfs/horizons/ketchrsbs lnru.pdf	A	a	a	b	a/b/c	X	a	1	1	2	2	2	8	CO# 6
Kirby, D.	The impact of abstinence and comprehensive sex and STD/HIV education programs on adolescent sexual behaviour	Sexuality Research and Social Policy, 5(3), 18–27 (2008)	E N A	b	b	a	a/b/c /c	X	c	3	2	3	3	2	13	CO# 28
Kirby, D.	The evidence base for sexuality education (updated version of review by Kirby, Obasi and Laris in Ross (2006))	The International Technical Guidance on Sexuality Education, UNESCO (2009)	G L	b	b	a	c	X	c	3	3	3	3	3	15	CO# 20
Kirby, D., Laris, B., Rolleri, L.	Sex and HIV education programs for youth: Their impact and important characteristics	Family Planning International (2006)	G L	a	b	a	c	X	c	2	2	2	3	3	12	MC# 84
Kirby, D.B. et al.	The ‘Safer choices’ intervention: Its impact on sexual behaviours of different subgroups of high school students	Journal of Adolescent Health, 35(6), 442–52 (2004)	E N A	b	a	a	c	X	a	3	3	3	3	2	14	MC# 57
Kohler, P.K., Manhart, L.E. and Lafferty W.E.	Abstinence-only and comprehensive sex education and the initiation of sexual activity and teen pregnancy	Journal of Adolescent Health, 42(4), 335–44 (2008)	E N A	b	a	a	c/e	X	a	2	2	2	3	2	11	MC# 58
Lakhanpal, M. and Ram, R.	Educational attainment and HIV/AIDS prevalence: A cross-country study	Economics of Education Review, 27(1), 14–21 (2008)	G L	a	a	X	e	X	a	2	3	3	3	3	14	CO# 28
Lal, P. et al.	A study of awareness about HIV/AIDS among senior secondary school children of Delhi	Indian Journal of Community Medicine, 33(3), 190–92 (2008)	A P	a	a	a	a	X	a	1	1	1	2	1	6	MC# 25
Lal, S. S. et al.	Knowledge and attitude of college students in Kerala towards HIV/AIDS,	National Medical Journal of India, 13(5),	A	a	a	b	a/b	X	a	2	2	3	3	3	1	MC#

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Masters, N. T. et al.	sexually transmitted diseases and sexuality The opposite of sex? Adolescents' thoughts about abstinence and sex, and their sexual behaviour	231–36 (2000) Perspectives on Sexual and Reproductive Health, 40(2), 87–93 (2008)	P E N A	b	a	a	b/c	X	a	3	2	3	2	2	3	26 MC# 60
Mathews, C. et al.	Factors associated with teachers' implementation of HIV/AIDS education in secondary schools in Cape Town, South Africa	AIDS Care, 18(4), 388–397 (2006)	A	a	a	b	X	b/c /d	a	2	3	2	2	3	1	MC# 27
Maticka-Tyndall, E. et al.	The sexual scripts of Kenyan youth and HIV prevention	Culture, Health and Sexuality, 7, 27–41 (2005)	A	a	a	a	b/c	X	b	3	2	2	2	2	1	MC# 61
Maticka-Tyndall, E., Wildish, J. and Gichuru, M.	Quasi-experimental evaluation of a national primary school HIV intervention in Kenya	Evaluation and Program Planning, 30(2), 172–86 (2007)	A	b	a	a	a/c	X	a	2	3	3	3	3	1	CO# 13
Mazloomi, S. and Baghianimoghadam, M.	Knowledge and attitude about HIV/AIDS of schoolteachers in Yazd, Islamic Republic of Iran	East Mediterr Health J, 14(2), 292–97 (2008)	A S	a	a	b	a/b	X	a	2	1	2	2	1	8	MC# 28
McGinty, S. and Mundy, K.	HIV/AIDS educators: The challenges and issues for Namibian bachelor of education students	Teaching and Teacher Education: An International Journal of Research and Studies, 25(1), 141–48 (2009)	A	a	a	b	a/b/c	b	a	3	2	2	3	3	1	CO# 15
McManus, A. and Dhar, L.	Study of knowledge, perception and attitude of adolescent girls towards STIs/HIV, safer sex and sex education: A cross sectional survey of urban adolescent schoolgirls in South Delhi, India	BMC Women's Health, 8(12) (2008)	A P	a	a	a	a/b/c	X	a	1	2	2	2	2	9	MC# 29
Merakou, K. and Kourea-Kremastinou, J.	Peer education in HIV prevention: an evaluation in schools	European Journal of Public Health, 16(2), 128–32 (2006)	E N A	b	a	a	a/b/c /d	X	a	1	2	3	2	2	1	MC# 30
Middelkoop, K. et al.	Design and evaluation of a drama-based intervention to promote voluntary counselling and HIV testing in a South African community	Sexually Transmitted Diseases, 33(8), 524–26 (2006)	A	b	a	x	a/c	X	a	2	2	2	2	1	9	MC# 31
Miller, A.N. et al.	An outcome assessment of an ABC-based HIV peer education intervention among Kenyan university students	Journal of Health Communication, 13(4), 345–56 (2008)	A	a	a	a	a/b/c	X	a	3	2	2	3	1	1	MC# 32
Mturi, A. J. and Hennink, M. M.	Perceptions of sex education for young people in Lesotho	Health and Sexuality, 7(2), 129–44 (2005)	A	a	a	a/b/c	X	a/b /d	b	3	2	2	2	2	1	MC# 32
Mufune, P.	Stakeholder perceptions and attitudes towards sexual and reproductive health education in Namibia	Sex Education: Sexuality, Society and Learning, 8(2), 145–57 (2008)	A	a	a	b/c/d /x	X	a/b	b	3	2	2	2	2	1	MC# 32
Njue, C. et al.	'If you don't abstain, you will die of AIDS': AIDS Education in Kenya public schools	AIDS Education and Prevention, 21(2), 169–79 (2009)	A	a	a	a/b	X	c	b	2	3	2	2	2	1	CO# 12
Norr, K.F. et al.	Impact of peer group education on HIV prevention among women in Botswana	Health Care Women Int, 25(3), 210–26 (2004)	A	b	a	x	a/b/c	X	a	3	3	3	3	2	1	MC# 34
Norr, K.F. et al.	Short-term effects of a peer group intervention for HIV prevention among trainee teachers in Malawi	African Journal of AIDS Research, 6(3), 239–49 (2007)	A	b	a	b	a/b/c	X	a	3	3	3	3	3	5	MC# 35
O'Leary, A. et al.	Association between exposure to an HIV story line in The Bold and the Beautiful and HIV-related stigma in Botswana	AIDS Education and Prevention, 19(3), 209–17 (2007)	A	b	a	x	b	X	a	3	2	3	2	3	1	MC# 63

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Oshi, D. C., Nakalema, S. and Oshi, L. L.	Cultural and social aspects of HIV/AIDS sex education in secondary schools in Nigeria	Journal of Biosocial Science, 37(2), 175–83 (2005)	A	a	a	b	X	b/c	b	2	2	2	2	2	10	MC# 36
Pettifor, A. E. et al.	Keep them in school: the importance of education as a protective factor against HIV infection amongst young South African women	International Journal of Epidemiology, 37(6), 1266–73 (2008)	A	a	a	a	c/e	X	a	3	2	3	3	2	13	CO# 27
Pick, S. et al.	Communication as a protective factor: Evaluation of a life skills HIV/AIDS prevention program for Mexican elementary-school students	AIDS Education and Prevention, 19(5), 408–21 (2007)	L A A C	b	a	a	c	X	a	1	3	3	3	2	12	CO# 19
Popova, N.	College students' attitudes toward people infected with HIV	Russian Education and Society, 49(4), 60–75 (2007)	E N A	a	a	a/b	a/b	X	a	2	0	0	2	0	4	CO# 11
Raj, A. et al.	Gender differences in associations between exposure to school HIV education and protective sexual behaviours and sexually transmitted disease/HIV diagnosis among high school students	Sex Education: Sexuality, Society and Learning, 7(2), 191–99 (2007)	E N A	a	a	a	c	X	a	1	3	3	2	3	12	MC# 65
Ross, M.W. et al.	Outcomes of project wall talk: An HIV/AIDS peer education program implemented within the Texas State Prison System	AIDS Education and Prevention, 18(6), 504–17 (2006)	E N A	b	a	x	a/c	X	a	3	3	3	2	2	13	MC# 66
Santelli, J.	Abstinence and abstinence-only education: A review of U.S. policies and programs	Journal of Adolescent Health, 38(1), 72–81 (2006)	E N A	a	b	a	x	b/c	c	1	1	2	2	1	7	MC# 85
Smith, G. et al.	HIV/AIDS school-based education in selected Asia-Pacific countries	Sex Education, 3(1), 3–21 (2003)	A P	a	a	X	d	X	a / b	2	2	2	3	2	11	MC# 67
Snelling, D. et al.	HIV/AIDS knowledge, women's education, epidemic severity and protective sexual behaviour in low- and middle-income countries	Journal of Biosocial Science, 39, 421–442 (2006)	L A C	a	a	X	c	X	a	3	2	3	3	3	14	MC# 78
Stinnett, T. A., Cruce, M. K. and Choate, K. T.	Influences on teacher education student attitudes toward youth are HIV+	Psychology in the Schools, 41(2), 211–19 (2004)	E N A	a	a	b	b	X	a	3	2	2	3	1	11	MC# 68
Tapia-Aguirre, V. et al.	Association among condom use, sexual behavior, and knowledge about HIV/AIDS. A study of 13,293 public school students	Archives of Medical Research, 35(4), 334–43 (2004)	L A C	a	a	a	a/c	X	a	2	2	3	3	2	12	MC# 39
Thato, R., Jenkins, R.A. and Dusitsin, N.	Effects of the culturally-sensitive comprehensive sex education programme among Thai secondary school students	Journal of Advanced Nursing, 62(4), 457–69 (2008)	A P	b	a	a	a/c	X	a	3	3	3	3	2	14	MC# 44
Turhan, E., Inandi, Y. and Inandi, T.	Risk perception, knowledge and social distance of Turkish high school students about HIV/AIDS	Journal of Public Health, 28(2), 137–38	A P	a	a	a	a/b	X	a	1	0	0	1	1	3	MC# 40
Underhill, K., Operario, D. and Montgomery, P.	Systematic review of abstinence-plus HIV prevention programs in high-income countries	Plos Medicine, 4, 1471–85 (also Cochrane Review website) (2007)	E N A	b	b	a	c/e	X	c	3	3	3	3	3	15	CO# 17

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UNICEF	HIV and AIDS knowledge, attitudes, practices and behaviour (KAPB) study in Namibia: key findings	UNICEF Namibia (online report) (2006)	A	a	a	a	a/b/c	X	a	1	3	3	3	2	12	CO# 9
Van Dyk, A. C.	Perspectives of South African school children on HIV/AIDS, and the implications for education programmes	African Journal of AIDS Research, 7(1), 79–93 (2008)	A	a	a	a	a/b	X	b	3	2	3	3	3	4	MC# 41
van Laren, L.	Using metaphors for integrating HIV and AIDS education in mathematics curriculum in pre-service teacher education: An exploratory classroom study	International Journal of Inclusive Education, 11(4), 461–79 (2007)	A	a	a	b	X	b	b	3	2	1	2	1	9	MC# 69
Vandemoortele, J. and Delamonica, E.	The 'Education Vaccine' against HIV	Current Issues in Comparative Education, 3(1), 6–13 (2000)	G L	a	b	X	e	X	c	1	0	0	2	2	5	MC# 87
Vavrus, F.	Girls' schooling in Tanzania: The key to HIV/AIDS prevention?	AIDS Care – Psychological and Socio-Medical Aspects of AIDS/HIV, 18(8), 863–71 (2006)	A	a	a	a	a	X	a	3	2	2	3	2	12	MC# 70
Visser-Valfrey, M.	The impact of individual differences on the willingness of teachers in Mozambique to communicate about HIV/AIDS in school and communities	PhD. Florida State University College of Communication (2004)	A	a	a	b	X	a/b	a	3	3	3	3	3	15	MC# 71
Visser, M. J.	Life skills training as HIV/AIDS preventive strategy in secondary schools: evaluation of a large-scale implementation process	Sahara Journal, 2(1), 203–16 (2005)	A	b	a	a	a/b/c	a/b /c	a	3	3	3	3	3	15	MC# 43
Visser, M. J.	HIV/AIDS prevention through peer education and support in secondary schools in South Africa	Sahara Journal, 4(3), 678–94 (2007)	A	b	a	a	a/c	X	a	3	3	3	3	3	15	MC# 42
Visser, R.	Communicating about HIV/AIDS: Attitude functions and willingness to talk about condoms and sexuality in Mozambique	Annual meeting of the International Communication Association, Dresden International Congress Centre, Dresden (2006)	A	a	a	b	X	b	b	3	3	3	3	3	15	MC# 72
Vuttanont, U. et al.	'Smart boys' and 'sweet girls' – sex education needs in Thai teenagers: a mixed-method study	Lancet, 368(9552), 2068–80 (2006)	A P	a	a	a	a/b	X	a	2	2	3	3	2	12	MC# 45
Walcott, C. M. et al.	Adolescent sexual risk behaviours and school-based sexually transmitted infection/HIV Prevention	Psychology in the Schools, 45(1), 39–51 (2007)	E N A	a	b	a	c	x	c	2	0	0	2	2	6	MC# 88
Walker, D. et al.	HIV prevention in Mexican schools: prospective randomised evaluation of intervention	British Medical Journal, 332(7551), 1189–94 (2006)	L A C	b	a	a	c	X	a	2	3	3	3	3	14	CO# 23
Walque, D.	How does the impact of an HIV/AIDS information campaign vary with educational attainment? Evidence from rural Uganda	Journal of Development Economics 84(2), 686–712 (2007)	A	b	a	X	e	X	a	2	2	2	2	2	10	MC# 89
Wang, B. et al.	The potential of comprehensive sex education in China: Findings from suburban Shanghai	International Family Planning Perspectives, 31(2), 63–72	A P	b	a	a	c	X	a	2	2	2	2	1	9	CO# 24
Xiaoming, L. et al.	Cultural adaptation of the focus on kids program for college students in China	AIDS Education and Prevention, 20(1), 1–14 (2008)	A P	b	a	a	a/c	X	a	3	3	2	2	2	12	MC# 46

1. Author	2. Title	3. Journal / Source	4. Regional grouping	5. Purpose of research	6. Source of evidence	7. Population group being studied	8. Factors assessed for HIV & AIDS disease	9. Factors assessed for HIV&AIDS education	10. Methodology type	11. Focus	12. Methodology - Explanation of Methods (i)	13. Methodology - Choice and suitability of tools (ii)	14. Analysis	15. Conclusion	16. Total score	17. Review code
Yankah, E. and Aggleton, P.	Effects and effectiveness of life skills education for HIV prevention in young people	AIDS Education and Prevention, 20(6), 465–85 (2008)	G L	a	b	a	a/b/c	X	c	3	3	3	3	2	1 4	MC# 90
Yazdi, C.A. et al.	Knowledge, attitudes and sources of information regarding HIV/AIDS in Iranian adolescents	AIDS Care – Psychological and Socio-Medical Aspects of AIDS/HIV, 18(8), 1004–10 (2006)	A S	a	a	a	a/b	e	a	2	2	2	2	2	1 0	MC# 47
Zhang, L. et al.	Where do Chinese adolescents obtain knowledge of sex? Implications for sex education in China	Health Education, 107(4), 351–63 (2007)	A P	a	a	a	d	X	a	2	2	3	3	2	1 2	MC# 48
Zhang, L. et al.	Stigmatizing attitudes toward people living with HIV/AIDS among college students in China: Implications for HIV/AIDS education and prevention	Health Education, 108(2), 130–44 (2008)	A P	a	a	a	a/b	X	a	2	2	2	3	2	1 1	MC# 49

Legends:

Column 4: A= AFRICA; AP= ASIA PACIFIC; AS=ARAB STATES; ENA = EUROPE AND NORTH AMERICA; LAC = LATIN AMERICA AND CARRIB

Column 5: a) situation assessment; b) intervention evaluation; c) other (please state main purpose);

Column 6: a) primary data; b) secondary data (lit review)

Column 7: a) students and young people; b) teachers; c) parents; d) community x) other

Column 8: a) knowledge; b) attitudes (includes stigma); c) practices; d) access to services; e) other

Column 9: a) knowledge; b) attitudes (includes stigma); c) practices; d) access to services; e) other

Column 10: a = quant, b=qualitative, c=secondary data

Column 11: 0 = Unfulfilled; 1 = Rudimentary; 2 = Satisfactory; 3 = Comprehensive

Column 12: 0 = Unfulfilled; 1 = Rudimentary; 2 = Satisfactory; 3 = Comprehensive

Column 13: 0 = Unfulfilled; 1 = Rudimentary; 2 = Satisfactory; 3 = Comprehensive

Column 14: 0 = Unfulfilled; 1 = Rudimentary; 2 = Satisfactory; 3 = Comprehensive

Column 15: 0 = Unfulfilled; 1 = Rudimentary; 2 = Satisfactory; 3 = Comprehensive

Column 16: 0–4 points = very weak; 5–8 points = contains significant weaknesses; 9–12 points = strong in parts; 13–15 points = strong in all areas

UNAIDS Inter-Agency Task Team members and contributors

Members of the UNAIDS Inter-Agency on Education (IATT) include UNAIDS Cosponsors, bilateral agencies, private foundations and civil society partners involved in supporting education sector responses to HIV and AIDS. Current members and contributors include:

Academy for Educational Development (AED) – www.aed.org
ActionAid/Global Campaign for Education (GCE) – www.actionaid.org
Association for the Development of Education in Africa (ADEA) – www.adeanet.org
American Institutes for Research (AIR) – www.air.org
Association of African Universities (AAU) – www.aau.org
Australian Government Overseas Aid Program (AusAid) – www.usaid.gov.au
Canadian International Development Agency (CIDA) – www.acdi-cida.gc.ca
CARE International - www.care-international.org
Commonwealth Secretariat - www.thecommonwealth.org
Council on Foreign Relations (CFR) – www.cfr.org
Department for International Development (U.K.) (DFID) – www.dfid.gov.uk
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) – www.gtz.de
Education Development Center (EDC) – www.edc.org
Education International (EI) – www.ei-ie.org
EduSector AIDS Response Trust (ESART)
European Commission (EC) – http://ec.europa.eu/index_en.htm
Ford Foundation – www.fordfound.org
International Labour Organization (ILO) – www.lilo.org
Irish Aid – www.dci.gov.ie
Joint United Nations Programme on HIV/AIDS (UNAIDS) – www.unaids.org
Nelson Mandela Foundation – www.nelsonmandela.org
Netherlands Ministry of Foreign Affairs – www.minbuza.nl
Norwegian Agency for Development Cooperation (Norad) – www.norad.no
Partnership for Child Development (PCD) – www.child-development.org
International Save the Children Alliance - www.savethechildren.net/alliance
Swedish International Development Cooperation Agency (SIDA) – www.sida.se
United Nations Children Fund (UNICEF) – www.unicef.org
United Nations Development Programme (UNDP) – www.undp.org
United Nations Educational, Scientific and Cultural Organization (UNESCO) – www.unesco.org
United Nations High Commissioner for Refugees (UNHCR) – www.unhcr.org
United Nations Office on Drugs and Crime (UNODC) – www.unodc.org
United Nations Population Fund (UNFPA) – www.unfpa.org
United States Agency for International Development (USAID) – www.usaid.gov
University of London, Institute of Education – www.ioe.ac.uk
University of New South Wales, National Centre in HIV Social Research – <http://nchsr.arts.unsw.edu.au>
University of Pretoria, Centre for the Study of AIDS – www.csa.za.org
University Putra Malaysia, Faculty of Medicine and Health Sciences – www.medic.upm.edu.my/webenglish/index.htm
World Health Organization (WHO) – www.who.org
World Bank – www.worldbank.org
World Food Programme (WFP) – www.wfp.org

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