School-Based Reproductive Health and HIV Education Programs – An Effective Intervention

Recent research has confirmed and expanded earlier findings concerning the positive impacts of reproductive health (RH) and HIV education programs. More guidance regarding developing and adapting curricula for diverse settings has also emerged based on sharing of field implementation experiences. Even so, implementing this guidance at the country level remains challenging, given inadequate teacher training, varying availability of funds, and cultural sensitivities about discussing sexuality.

New review confirms and expands previous findings

In 2005, Family Health International (FHI)/YouthNet sponsored the first comprehensive review of sex and HIV education programs for youth in both developing and developed countries, covering programs that had been implemented among groups of youth using a written curriculum and had been evaluated.1 Douglas Kirby of ETR Associates led the study, building on methodologies used in earlier reviews.2 This most recent review identified 83 program evaluations that matched the study criteria, of which 18 were in developing countries: Belize, Brazil, Chile, Jamaica, Kenya, Mexico, Namibia, Nigeria, South Africa, Tanzania, Thailand, and Zambia.

The 83 studies reported on the impact on initiation of sex, frequency of sex, number of sexual partners, condom use, and other sexual behaviors. Globally, two-thirds of the programs had the desired impact on one or more of the sexual behaviors measured. Thirteen of the 18 programs in developing countries had a positive impact; none had a negative impact, i.e., earlier sexual debut or more frequent sexual activity among those already sexually active. Among the findings were:

- 22 out of 52 programs showed a significant delay of sexual initiation
- 12 out of 34 programs found a reduced number of sexual partners
- 26 out of 54 programs found an increase in condom use

The programs were successful in all types of settings and countries, among males and females, for different age groups, and among varying income levels. Also, many programs had positive effects on the factors that determine sexual risk behaviors, including knowledge about sexually transmitted infections (STIs) and pregnancy, awareness of risk, values and attitudes toward sexual topics, self-efficacy (negotiating condom use or refusing unwanted sex), and intentions to abstain or restrict the number of sexual partners. The review identified 17 characteristics that nearly all of the successful programs incorporated. Programs that incorporated these characteristics were more likely to change behavior positively than programs that did not incorporate most of them. The characteristics were divided among the development, content, and implementation of the curriculum.
In a similar review as part of a larger project by the United Nations (UN) Inter-Agency Task Team on Young People, Kirby and colleagues recommended that policy-makers implement curriculum-based education interventions with effective characteristics, led by adults. This was one of only a few intervention approaches recommended by the UN group to policy-makers for immediate action on a large scale, based on a two-year analysis of evidence of various types of interventions in developing countries.\(^3\)

The reviews for FHI and the UN acknowledged that few evaluations incorporated biological markers, pointing out the reliance on self-reports of students. The reviews called for more rigorous studies with randomized design and measurements of pregnancy and STIs to complement self-reported behavioral data.

### Challenges in implementation

To share these and other research findings relating to curriculum-based sex and HIV education, as well as field implementation experiences, FHI/YouthNet and the U.S. Agency for International Development (USAID) sponsored a meeting in January 2006 in Washington, DC. Country-level program managers addressed such issues as teacher training, scaling up, quality assurance, and gender. In a follow-on technical consultation, participants provided field context for the curricula characteristics identified by the Kirby research, discussed tips and lessons learned in implementing such curricula, and suggested additional experienced-based characteristics that should also be considered as best practices.

Based on these meetings, a manual of 24 standards was published, including examples and lessons learned in implementation. Program designers, curriculum developers, educators, managers, evaluators, and others can use the manual to assess the quality of existing programs and guide the adaptation or development and implementation of a new curriculum (see box).\(^4\) For example, UNICEF is using the standards to guide programs in more than a dozen countries.

Many implementation challenges go beyond what is captured in these standards, such as how to conduct effective teacher training. An issues paper previously published by FHI/YouthNet assesses teacher training curricula, includes a checklist on teacher selection criteria, and offers recommendations to build on successes described in several short case studies. For example, teacher training needs the support of national ministries, local school management, and local communities. Teachers need support after the initial training and need to be willing and motivated to teach RH and HIV issues. Teacher training should emphasize a policy of zero tolerance for sexual exploitation of students.\(^5\)

Even teachers who are trained are often not willing to teach the most sensitive parts of the curriculum, such as information and skills related to condom use. A review of 11 school-based sex education programs in Africa by Gallant and Maticka-Tyndale concluded, “Programmes must be prepared to cope with reluctance to include the topic of condoms. All but two programmes attempting to address condom use as a method to reduce the risk of HIV transmission encountered resistance from communities and teachers.”\(^6\) The review found that some teachers were reluctant to teach about condoms because they felt this could lead to their dismissal, while others felt that part of the curriculum contradicted their personal values. Strategies that have been used to address this problem of selective teaching in different settings include: incorporating values clarification modules in teacher training, working with community stakeholders, and bringing health professionals or other nongovernmental organization (NGO) staff into schools to teach the more sensitive content when necessary. Health providers can also help to change attitudes of influential community members, who in turn can help support teachers.

Another key challenge is moving beyond small pilot projects to scaled-up implementation throughout a country. In Kenya, the Primary School Action for Better Health (PSABH) project is seeking to expand HIV education rapidly to a national scale.
In 1999, a pilot test began in about a third of the 3,800 primary schools in one region working with the Kenyan Ministry of Education (MOE). In 2001, PSABH began expanding in more areas, when the MOE mandated one HIV/AIDS lesson per week. In 2002, HIV/AIDS questions were added to national exams, further providing support for programming. By the end of June 2006, PSABH had been implemented in 11,000 of Kenya’s 18,500 primary schools. The project has drawn on the expertise of the MOE and Ministry of Health, utilized formative research on young people’s attitudes, focused on teacher training capacity within the MOE, and sought ways to deal with resistance to teach sensitive issues.

A 2004 evaluation of the initial implementation found that PSABH has had a “direct and statistically significant effect on the uptake of HIV and AIDS programming in schools.” A large number of teachers had been trained, and factual and behavior change messages were evident in the schools. In general, the project has been successful thus far in using a cascade training process to train the requisite number of teachers to rapidly scale up the HIV education program, and the program has been infused and integrated throughout classroom subjects and out-of-class activities. The challenges encountered relate largely to the sensitive nature of the HIV/AIDS information and to quality control when working with such large numbers of teachers and school systems.

The PSABH project has focused more on reaching the maximum number of students and less on implementation quality, as often found in smaller pilot projects. The project uses a framework called “action research,” where operations research findings are integrated into the expansion steps. An evaluation of the project after 30 months, with 6,700 boys and 6,300 girls ages 11 to 17, found significant results in boys and girls remaining virgins and among girls, using condoms in last sex, compared with comparison groups.

Another model has been for NGOs to train peer educators to work with local schools, often as part of broader community-based activities. In Zambia, for example, Students Partnership Worldwide (SPW) trained and supported 120 peer educators to provide RH and HIV prevention information for 70,000 youth attending 150 rural schools. The

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**STANDARDS FOR RH/HIV EDUCATION CURRICULUM FOR YOUTH**

Below are standards for developing or adapting a reproductive health or HIV education curriculum for youth in developing countries, based on a comprehensive review of evaluated programs and field experiences. For tips, examples, and context, see Standards for Curriculum-Based Reproductive Health and HIV Education Programs at: www.fhi.org/en/Youth/YouthNet/Publications/otherpubs.htm.

**Development and adaptation**
1. Involve professionals, stakeholders, and those with relevant experience.
2. Conduct assessments of the target group(s’) needs and assets.
3. Use a planning framework that relates health goals, desired behavior change, and activities.
4. Consider community values and norms in designing activities.
5. Consider availability of resources.
6. Pilot test curriculum and revise as needed.

**Content and approach**
1. Incorporate a means to assure a safe environment for participating and learning.
2. Focus on clear health goals in determining curriculum content, approach, and activities.
3. Focus on specific behaviors that lead to or prevent unintended pregnancy, STIs, and HIV.
4. Address multiple risk and protective factors affecting sexual behaviors.
5. Include multiple activities to change each of the targeted risk and protective factors.
6. Incorporate instructionally sound and participatory approaches.
7. Use activities, messages, and methods that are appropriate to the culture, age, and sexual experience of targeted populations.
8. Address gender issues and sensitivities in both the content and teaching approach.
9. Cover topics in a logical sequence.
10. Present information that is scientifically and medically accurate.

**Implementation**
1. Make relevant authorities and gatekeepers aware of the program’s content and timetable, keep them informed, and encourage them to support the program.
2. Establish a process to select appropriate and motivated educators.
3. Provide quality training to educators.
4. Have in place management and supervision needed for implementation and oversight.
5. Implement activities, if needed, to recruit youth participants.
6. Implement activities to retain and monitor youth participants.
7. Establish monitoring and assessment systems to improve effectiveness on a continual basis.
8. Include activities to address all key topics designated by the curriculum and implement the activities in the order presented.
project combines classroom and community activities, using recent high-school graduates who undergo several months of training, after which they live and work in a village. A rapid appraisal based on interviews at 10 schools identified a number of strengths, such as reaching a large audience and delivering factually correct information. Challenges included the need for further capacity building of the schools, increased community involvement, further scaling up, and outcome and impact data. The national ministry is working with SPW/Zambia to expand the effort to more regions of the country.9

New research and implementation experiences show enormous progress in school-based RH and HIV education programs. “About 20 years ago, no programs had demonstrated significant changes in behavior; by now a majority have done so, and a few have even demonstrated a positive impact for three years or more,” reported Kirby and colleagues.10

The evidence is clear: communities should implement well-designed curriculum-based RH and HIV education programs in their schools, clinics, and youth-serving agencies. However, countries should not rely only on these programs to address problems of HIV, other STIs, and pregnancy, but also incorporate them as part of a larger effort to prevent sexual risk-taking behaviors.

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REFERENCES


YouthLens is an activity of the Interagency Youth Working Group (IYWG), a network of nongovernmental agencies, donors, and cooperating agencies working to improve reproductive health and prevent HIV among young people ages 10 to 24. The U.S. Agency for International Development funds the IYWG. Family Health International produces the YouthLens publication series.