



August 2016 – SUPPORT Summary of a systematic review

Is peer education an effective method for HIV prevention in low- and middle-income countries?

Peer education uses individuals to convey specific information to members of a peer or target group with the aim of improving awareness or behaviours. Peer educators must share common key characteristics with those being targeted, but may either come from inside or outside the targeted group.

Key messages

- Peer education may improve knowledge about HIV and about condom use in all target groups except amongst transport workers.
- Peer education may reduce the sharing of drug injection equipment.
- It is uncertain whether the use of peer education is associated with an increase in sexually transmitted infection rates in transport workers.
- There is limited evidence regarding different approaches for recruiting, training, supervising, compensating and retaining peer educators.



Who is this summary for?

People making decisions concerning HIV prevention strategies in low-income countries

! This summary includes:

- **Key findings** from research based on a systematic review
- **Considerations about the relevance of this research** for low-income countries

X Not included:

- Recommendations
- Additional evidence not included in the systematic review
- Detailed descriptions of interventions or their implementation

This summary is based on the following systematic review:

Medley A, Kennedy C, O'Reilly K, Sweat M. Effectiveness of peer education interventions for HIV prevention in developing countries: a systematic review and meta-analysis. *AIDS Educ Prev* 2009; 21:181-206.

What is a systematic review?

A summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise the relevant research, and to collect and analyse data from the included studies

SUPPORT was an international project to support the use of policy relevant reviews and trials to inform decisions about maternal and child health in low- and middle-income countries, funded by the European Commission (FP6) and the Canadian Institutes of Health Research.

Glossary of terms used in this report:
www.supportsummaries.org/glossary-of-terms

Background references on this topic:
See back page

Background

Peer educators receive training related to the issue about which they are asked to educate others. Such educational interventions are based on the assumption that peers exert a strong influence on individuals' knowledge and behaviour. In certain instances, peers are seen as more acceptable than outside professionals, particularly if sensitive topics are being discussed. It has been argued that peer education empowers both the peer educator and the target group, and is more cost-effective than interventions that rely on professional staff. Peer education can also help to gain better access to hard-to-reach populations. Such advantages make peer education a preferred tool in HIV-prevention interventions, and it is often used to spread knowledge about sexually transmitted infections, raise risk awareness, and promote safe sex strategies, particularly the use of condoms.

This review on the impact of peer education on HIV/AIDS-related outcomes is one of a series of systematic reviews on behavioral interventions for HIV prevention in low- and middle-income countries.

How this summary was prepared

After searching widely for systematic reviews that can help inform decisions about health systems, we have selected ones that provide information that is relevant to low-income countries. The methods used to assess the reliability of the review and to make judgements about its relevance are described here: www.supportsummaries.org/how-support-summaries-are-prepared/

Knowing what's not known is important

A reliable review might not find any studies from low-income countries or might not find any well-designed studies. Although that is disappointing, it is important to know what is not known as well as what is known.

A lack of evidence does not mean a lack of effects. It means the effects are uncertain. When there is a lack of evidence, consideration should be given to monitoring and evaluating the effects of the intervention, if it is used.

About the systematic review underlying this summary

Review objective: To assess the effect of peer-education interventions on HIV knowledge, sharing of drug injection equipment, condom use, and sexually transmitted infections in developing country settings.

Types of	What the review authors searched for	What the review authors found
Study designs & Interventions	Peer education (the sharing of information by a peer in small groups or one-to-one)	30 studies were found including 3 randomised trials, 14 cross-sectional studies, 10 before-after studies, and 3 non-randomised trials
Participants	No restrictions	Youth (8 studies), commercial sex workers (12), injection drug users (4), transport workers (3), heterosexual adults (6), people in jail (2), and miners (1)
Settings	Developing countries (according to The World Bank)	Sub-Saharan Africa (13 studies), East and Southeast Asia (10), Central Asia (5), Latin America and the Caribbean (2 studies)
Outcomes	Behavioural, psychological, social, care, or biological outcomes related to HIV prevention	HIV knowledge (26 studies), drug injection equipment sharing (6), condom use (29), sexually transmitted infections (11)

Date of most recent search: November 2006

Limitations: This systematic review has important limitations. Only peer-reviewed journal articles were considered, and there were differences between studies with regard to outcome definition.

Medley A, Kennedy C, O'Reilly K, Sweat M. Effectiveness of peer education interventions for HIV prevention in developing countries: a systematic review and meta-analysis. *AIDS Educ Prev* 2009; 21:181-206.

Summary of findings

Thirty studies were conducted among different population subgroups including youth, commercial sex workers, drug injection users, transport workers, heterosexual adults, prisoners, and miners. The studies were conducted in sub-Saharan Africa, Asia, Latin America, and the Caribbean. The studies reported outcomes on levels of HIV knowledge, condom use, drug injection equipment use, and sexually transmitted infections.

Different implementation issues such as recruiting, training and supervision, compensation and the retention of peer-educators were reported in a subset of the studies. The described recruitment and training and supervision strategies were generally successful, and most programmes paid a small compensation fee to peer educators. Peer educator retention rates were reported to be low in most studies. However, this information appeared to be anecdotal and not collected systematically during process evaluations.

- **Peer education may improve knowledge about HIV and about condom use in all target groups except amongst transport workers. The certainty of this evidence is low.**
- **Peer education may reduce the sharing of drug injection equipment. The certainty of this evidence is low.**
- **It is uncertain whether the use of peer education is associated with an increase in sexually transmitted infections rates in transport workers. The certainty of this evidence is very low.**
- **There is limited evidence regarding different approaches for recruiting, training and supervising, compensating and retaining peer educators.**

About the certainty of the evidence (GRADE) *

⊕⊕⊕⊕

High: This research provides a very good indication of the likely effect. The likelihood that the effect will be substantially different† is low.

⊕⊕⊕○

Moderate: This research provides a good indication of the likely effect. The likelihood that the effect will be substantially different† is moderate.

⊕⊕○○

Low: This research provides some indication of the likely effect. However, the likelihood that it will be substantially different† is high.

⊕○○○

Very low: This research does not provide a reliable indication of the likely effect. The likelihood that the effect will be substantially different† is very high.

* This is sometimes referred to as 'quality of evidence' or 'confidence in the estimate'.

† Substantially different = a large enough difference that it might affect a decision

See last page for more information.

Peer-education interventions		
People	Youth, commercial sex workers, injection drug users, transport workers, heterosexual adults, people in jail, miners	
Settings	Low- and middle-income countries	
Intervention	Peer-education interventions	
Comparison	No intervention	
Outcomes	Impact	Certainty of the evidence (GRADE)
HIV knowledge	<p>Across target groups: - Knowledge about HIV increased: OR 2.28; 95% CI 1.88 - 2.75</p> <p>Stratified by target group: - Knowledge about HIV increased ($p < 0.05$) among all target groups except transport workers</p>	⊕⊕○○ Low
Injection drug equipment sharing	<p>Sharing of drug injection equipment reduced: OR 0.37; 95% CI 0.20 - 0.67</p>	⊕⊕○○ Low
Condom use	<p>Across target groups: - Condom use increased: OR 1.92; 95% CI 1.59 - 2.33 (all partners) - Condom use increased: OR 1.94; 95% CI 1.27 - 2.94 (regular partners) - Condom use increased: OR 2.23; 95% CI 1.70 - 3.09 (casual partners)</p> <p>Stratified by target group: - Condom use increased ($p < 0.05$) among all target groups except youth and adolescents</p>	⊕⊕○○ Low
Sexually transmitted infections infection (STI)	<p>Across target groups: uncertain whether STI rates increased: OR 1.22; 95% CI 0.88 - 1.71</p> <p>Stratified by target group: - STI rates increased among transport workers (OR 1.95; 95% CI 1.45 - 2.62)</p>	⊕○○○ Very low
OR: Odds Ratio; CI: confidence interval; p: p-value; GRADE: GRADE Working Group grades of evidence (see above and last page)		

Relevance of the review for low-income countries

→ Findings	▷ Interpretation*
APPLICABILITY	
→ All the studies included were conducted in low- and middle-income countries.	<ul style="list-style-type: none">▷ <i>The study findings were not analysed in terms of the size of the effect, or the regions, economic situations, or socio-political systems in which they were conducted</i>▷ <i>In some countries, interventions targeting certain groups may be difficult to implement (see 'Equity' below).</i>
EQUITY	
<ul style="list-style-type: none">→ All the studies focused on a specific group.→ The review did not examine the effects of peer education interventions on specific ethnic, religious and sexual minorities.	<ul style="list-style-type: none">▷ <i>The prevailing socio-political system of a country impacts on the visibility and accessibility of specific target groups such as ethnic, religious and sexual minorities, and illegal drug users. Such differences probably impact on the feasibility and effectiveness of interventions targeted to such groups.</i>
ECONOMIC CONSIDERATIONS	
→ The review did not provide information on absolute costs or cost-effectiveness.	<ul style="list-style-type: none">▷ <i>Peer education is assumed to be more cost-effective than other interventions that rely on health professionals. However, very little information about cost-effectiveness was provided.</i>▷ <i>The impact of payments for peer educators on intervention effects is unknown.</i>▷ <i>Considerable financial and human resources may be required to sustain peer education programmes due to high rates of peer turnover, training and supervision requirements, and other potential costs.</i>▷ <i>It is unclear whether peer education interventions could lead to cost savings through reductions in levels of sexually transmitted infections.</i>
MONITORING & EVALUATION	
<ul style="list-style-type: none">→ The certainty of the evidence for the effects of peer education interventions on behavioural outcomes is low.→ The certainty of the evidence for the effects of peer education interventions on health outcomes is very low.	<ul style="list-style-type: none">▷ <i>Any extension of peer education interventions to additional target groups (e.g. ethnic, religious and sexual minorities) should be monitored and evaluated.</i>▷ <i>Further evaluations of the effectiveness of peer education interventions on health outcomes are needed.</i>▷ <i>There is a need for process evaluations to understand how context might influence implementation.</i>

*Judgements made by the authors of this summary, not necessarily those of the review authors, based on the findings of the review and consultation with researchers and policymakers in low-income countries. For additional details about how these judgements were made see: www.supportsummaries.org/methods

Additional information

Related literature

Campbell C, Mzaidume Z. Grassroots participation, peer education, and HIV prevention by sex workers in South Africa. *Am J Public Health* 2001; 91:1978–86.

Campbell C, MacPhail C. Peer education, gender and the development of critical consciousness: Participatory HIV prevention by South African youth. *Soc Sci Med* 2002; 55:331–45.

Hutton G, Wyss K, N'Diekhon Y. Prioritization of prevention activities to combat the spread of HIV/AIDS in resource constrained settings: a cost-effectiveness analysis from Chad, Central Africa. *Int J Health Plann Manage* 2003; 18: 117–36.

Population Council. Peer Education and HIV/AIDS: Past Experience, Future Directions. 2002. Available at: www.popcouncil.org/pdfs/peer_ed.pdf

Strange V, Forrest S, Oakley A. Peer-led sex education – characteristics of peer educators and their perceptions of the impact on them of participation in a peer education programme. *Health Educ Res* 2002; 17:327–37.

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Conflict of interest

None declared. For details, see: www.supportsummaries.org/coi

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This review should be cited as

Medley A, Kennedy C, O'Reilly K, Sweat M. Effectiveness of peer education interventions for HIV prevention in developing countries: a systematic review and meta-analysis. *AIDS Educ Prev* 2009; 21:181–206.

The summary should be cited as

Steinmann P. Is peer education an effective method for HIV prevention in low- and middle-income countries? A SUPPORT Summary of a systematic review. August 2016. www.supportsummaries.org

About certainty of the evidence (GRADE)

The “certainty of the evidence” is an assessment of how good an indication the research provides of the likely effect; i.e. the likelihood that the effect will be substantially different from what the research found. By “substantially different” we mean a large enough difference that it might affect a decision. These judgements are made using the GRADE system, and are provided for each outcome. The judgements are based on the study design (randomised trials versus observational studies), factors that reduce the certainty (risk of bias, inconsistency, indirectness, imprecision, and publication bias) and factors that increase the certainty (a large effect, a dose response relationship, and plausible confounding). For each outcome, the certainty of the evidence is rated as high, moderate, low or very low using the definitions on page 3.

For more information about GRADE: www.supportsummaries.org/grade

SUPPORT collaborators:

The Cochrane Effective Practice and Organisation of Care Group (EPOC) is part of the [Cochrane Collaboration](http://www.cochrane.org). The Norwegian EPOC satellite supports the production of Cochrane reviews relevant to health systems in low- and middle-income countries. www.epocoslo.cochrane.org

The Evidence-Informed Policy Network (EVIPNet) is an initiative to promote the use of health research in policymaking in low- and middle-income countries. www.evipnet.org

The Alliance for Health Policy and Systems Research (HPSR) is an international collaboration that promotes the generation and use of health policy and systems research in low- and middle-income countries. www.who.int/alliance-hpsr

Norad, the Norwegian Agency for Development Cooperation, supports the Norwegian EPOC satellite and the production of SUPPORT Summaries. www.norad.no

The Effective Health Care Research Consortium is an international partnership that prepares Cochrane reviews relevant to low-income countries. www.evidence4health.org

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