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# Re-Examining the Evidence for Comprehensive Sex Education in Schools: A Global Research Review

## EXECUTIVE SUMMARY

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***The Institute for Research & Evaluation***
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***The Institute for Research and Evaluation (IRE)*** is a nonprofit research organization noted for its work evaluating sex education programs over the past 25 years. *IRE* has conducted program evaluations for federal Title V, CBAE, and Title XX projects in 30 states, and has evaluated sex education in three foreign countries, in total collecting data from more than 900,000 teens, and conducting over 100 evaluation studies. *IRE* staff members have published articles in professional journals and presented at professional conferences and workshops. Irene H. Ericksen has served on a national panel of consultants to the CDC-supported *Community Preventive Services Task Force* meta-analysis on sex education effectiveness and as a secondary author for the published study on the same topic (2012). Dr. Stan E. Weed, Founder and Director of *IRE*, has served as a national consultant for federal Title XX and CBAE projects, and was a charter member of the *National Campaign to Prevent Teen and Unplanned Pregnancy*. He has been invited to provide expert testimony about sex education to state legislative bodies, the U.S. Senate, the U.S. House of Representatives, and the White House.

## *PURPOSE*

To evaluate the global research evidence for school-based comprehensive sex education (CSE) according to meaningful standards of effectiveness rather than the lenient definition used by many CSE research reviews (e.g., the occurrence of one minimal positive outcome), in order to identify evidence of real program effectiveness.

## *BACKGROUND*

The negative consequences of teenage sexual activity continue at unacceptable rates. For example, youth aged 15–24 account for 45% of all new HIV infections globally (UNESCO, 2009), and in the U.S., one in four sexually active girls has an STD (CDC, 2016). Comprehensive sex education (CSE) is widely promoted as being effective at protecting adolescents from these harms and therefore a remedy that should be implemented in school classrooms worldwide (UNESCO, 2009, 2018). Yet the permissive and explicit content of many CSE curricula raise questions about its acceptability, and the weak definitions of "effectiveness" used in many reviews of CSE research raise serious concerns about its true impact. If CSE is to be implemented on a global scale, then the question of its effectiveness in school classrooms is crucial to the real protection of youth and the prudent stewardship of public funds around the world.

## *METHODS*

We examined the studies contained in three authoritative research reviews of sex education effectiveness: one conducted for the United Nations Educational, Scientific and Cultural Organization (UNESCO) and two sponsored by the U.S. federal government—the Teen Pregnancy Prevention evidence review and a meta-analysis study supported by the Centers for Disease Control and Prevention (CDC). These agencies screened several hundred sex education studies, spanning three decades, for acceptable research methods and included in their reviews only those studies that were of adequate scientific quality. There were 120 studies of school-based sex education which met that standard, including 60 U.S. studies and 43 non-U.S. studies of CSE programs (103 total) as well as 17 U.S. studies of abstinence education (AE), the often-used alternative to CSE. (The non-U.S. data did not contain enough studies of true abstinence programs for meaningful analysis.) Note: We identify a curriculum as "abstinence education" if it teaches sexual abstinence (refraining from sexual activity) as the primary protective behavior and does not promote condom or contraception use, whereas, the term "comprehensive sex education" (CSE) encompasses programs that promote condom/contraceptive use and may also teach abstinence in the same program.

We evaluated the outcomes of these 120 studies according to meaningful criteria of effectiveness grounded in the science of prevention research: effects sustained at least 12 months after the program, on a key protective indicator (abstinence, condom use—especially consistent condom use, pregnancy, or STDs), for the intended/targeted youth population, based on the preponderance of research evidence and excluding programs that also had negative effects.

## *KEY FINDINGS*

**<u>Results for 103 Studies of School-Based CSE: U.S. and non-U.S combined</u>**
**OVERALL:** Out of 103 international school-based CSE studies (60 in the U.S., 43outside the U.S.), only six found evidence of effectiveness (improvement on a protective outcome—abstinence, condom use, pregnancy, or STDs—12 months after the program, for the intended population, without other negative effects). Only one of the six studies was by an independent evaluator (not the program's developer) and the results have not been replicated.
**FAILURE RATE:**School-based CSE programs that attempted to show effectiveness—by producing sustained (12-month) effects on a key protective outcome for the intended population—failed 87% of the time.
**NEGATIVE EFFECTS:** Sixteen studies (16%) found 22 instances of harmful effects by school-based CSE, such as decreased condom use or increased sexual activity, number of partners, oral sex, forced sex, STDs, or pregnancy.
**U.S. vs. NON-U.S.:** School-based CSE programs implemented outside the U.S. appeared more likely to produce negative impact than U.S. programs: 21% of non-U.S. school-based CSE studies found harmful effects compared to 12% of the studies in the U.S. The rate of harm was 24% for school-based CSE in Africa.
**PREGNANCY OR STDs**: Although one of the 103 studies found a reduction in teen pregnancy and one study

found a reduction in STDs, 12 months after the program for the intended population without producing other negative effects, these results have not been replicated. (Most studies did not measure these outcomes even though they are considered to be primary targets of CSE).
**CONDOM USE:** There was no effectiveness at increasing consistent condom use—the behavior required for meaningful protection from STDs. Two programs increased a less-protective outcome, condom use frequency.
**DUAL BENEFIT:** There was no evidence of success for the purported dual benefit of CSE: increasing both abstinence and condom use (by sexually active teens) within the same youth population.

**Results for 17 Studies of School-Based Abstinence Education in the U.S.**
**OVERALL:** Out of 17 studies of AE in the U.S., seven found evidence of effectiveness: an increase in teen abstinence at least 12 months after the program for the intended population, without other negative effects. Five of the seven studies were by independent evaluators, and the results have not yet been replicated.
**FAILURE RATE:** Of the AE programs that measured effectiveness, as defined above, 53% failed to show it.
**NEGATIVE EFFECTS:** One AE program (6%) produced a negative effect: an increase in number of sex partners.
**PREGNANCY OR STDs:** Most AE studies did not measure program effects on pregnancy or STDs and none were found. However, the increases in teen abstinence produced by seven AE programs would be expected to cause reductions in teen pregnancy and STDs, though these effects were not measured in the studies.
**CONDOM USE:** AE does not teach condom use and the nine studies that measured AE impact on condom use found no detrimental effects, strong evidence that AE does not do harm by reducing teen condom use.

**Results for U.S. School-based CSE (60 studies) Compared to AE in the U.S. (17 studies)**
**OVERALL:** Seven AE studies found effectiveness compared to three studies of school-based CSE. Five of the AE studies were by independent evaluators versus none of the CSE studies. None of these results have been replicated.
**SUCCESS RATE:** The success rate for school-based CSE (15%) appeared much lower than the rate for AE (47%).
**NEGATIVE EFFECTS:** For school-based sex education in the U.S., the rate of negative impact for AE appeared somewhat lower than the rate for CSE (6% vs. 12%).
**SUCCESS vs. HARM:** For school-based CSE in the U.S., the evidence of negative effects (seven studies) appeared greater than the evidence of effectiveness or success (three studies). For school-based AE in the U.S., there appeared to be more evidence of success (seven studies) than harm (one study).

## *CONCLUSIONS*

Applying meaningful standards of effectiveness—criteria that have scientific validity and practical utility for policymakers and parents—to sex education outcomes produces a very different pattern of evidence for school-based CSE than what is typically reported by other research reviews that employ more-lenient definitions of effectiveness. Using these more-credible standards, the claims that school-based CSE has been proven effective and AE is ineffective are not supported by 120 of the strongest and most up-to-date sex education studies across the globe, the same studies that have been relied upon by the U.S. government and UNESCO in their extensive reviews of CSE results. *Three decades of research indicate that school-based comprehensive sex education has not been an effective public health strategy—it has produced only a few sustained effects on protective outcomes, without other negative impacts, in U.S. and non-U.S. settings combined. In fact, it has shown far more evidence of failure than success and caused a concerning number of harmful effects. The evidence for abstinence education effectiveness in the U.S., though limited, appears more promising—enough to justify additional research.*

## *RECOMMENDATIONS*

**Given the threat posed by STDs, HIV, and pregnancy to the health and well-being of young people worldwide, and the compelling lack of evidence of effectiveness for school-based Comprehensive Sex Education after nearly 30 years and 103 credible studies, we recommend that policymakers abandon plans for its global dissemination and pursue alternative prevention strategies for reducing the negative consequences of adolescent sexual activity. Replication studies of the positive findings for abstinence education should be done to inform the development of such paradigms.**