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Review article

Effective Strategies to Provide Adolescent Sexual and Reproductive Health Services and to Increase Demand and Community Support

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A B S T R A C T

Access to youth friendly health services is vital for ensuring sexual and reproductive health (SRH) and well-being of adolescents. This study is a descriptive review of the effectiveness of initiatives to improve adolescent access to and utilization of sexual and reproductive health services (SRHS) in low- and middle-income countries. We examined four SRHS intervention types: (1) facility based, (2) out-of-facility based, (3) interventions to reach marginalized or vulnerable populations, (4) interventions to generate demand and/or community acceptance. Outcomes assessed across the four questions included uptake of SRHS or sexual and reproductive health commodities and sexual and reproductive health biologic outcomes. There is limited evidence to support the effectiveness of initiatives that simply provide adolescent friendliness training for health workers. Data are most ample (10 initiatives demonstrating weak but positive effects and one randomized controlled trial demonstrating strong positive results on some outcome measures) for approaches that use a combination of health worker training, adolescent-friendly facility improvements, and broad information dissemination via the community, schools, and mass media. We found a paucity of evidence on out-of-facility–based strategies, except for those delivered through mixed-use youth centers that demonstrated that SRHS in these centers are neither well used nor effective at improving SRH outcomes. There was an absence of studies or evaluations examining outcomes among vulnerable or marginalized adolescents. Findings from 17 of 21 initiatives assessing demand-generation activities demonstrated at least some association with adolescent SRHS use. Of 15 studies on parental and other community gatekeepers' approval of SRHS for adolescents, which assessed SRHS/commodity uptake and/or biologic outcomes, 11 showed positive results. Packages of interventions that train health workers, improve facility adolescent friendliness, and endeavor to generate demand through multiple channels are ready for large-scale implementation. However, further evaluation of these initiatives is needed to clarify mechanisms and impact, especially of specific program components. Quality research is needed to determine effective means to deliver services outside the facilities, to reach marginalized or vulnerable adolescents, and to determine effective approaches to increase community acceptance of adolescent SRHS.

IMPLICATIONS AND CONTRIBUTION

Programs that promote access to and uptake of adolescent sexual and reproductive health services are most effective when adolescent-friendly facility-based approaches are combined with community acceptance and demand-generation activities. More research is needed to determine how best to deliver sexual and reproductive health services outside the facilities, especially to vulnerable and marginalized populations.

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Adolescence is often considered a period of relatively good health. However, adolescents (aged 10–19 years) face particular health risks, especially in relation to reproduction and sexuality. Eleven percent of all births and 14% of maternal deaths worldwide are among 15- to 19-year-old females with 95% of adolescent births taking place in developing countries [1,2]. Adolescents are also vulnerable to unwanted pregnancies; each year 7.4 million [3] and 3 million [4] girls experience unintended pregnancies and unsafe abortions, respectively. An estimated 1,300,000 adolescent girls and 780,000 adolescent boys are living with human immunodeficiency virus (HIV) worldwide [5]. Over 800,000 young people are newly infected every year; 79% of these infections occur in sub-Saharan Africa (SSA). Globally, young people account for 41% of new infections among those aged 15 years or older [6]. Adolescent girls are especially vulnerable to HIV acquisition [7].

Poor, marginalized and disenfranchised youth suffer the highest burden of disease. For example, homeless adolescents face higher risks of HIV infection [8,9]. Adolescents with disabilities are particularly vulnerable to sexual abuse and resultant unplanned pregnancies and HIV and other sexually transmitted infections (STIs) [5]. Trends in SSA show that adolescent girls from the richest three quintiles have experienced declines in rates of pregnancy over time, whereas those from the poorest quintiles have faced increased rates [10].

Overall, improvements in adolescent health over the past five decades have not kept pace with those observed in children; mortality among 1- to 4-year-olds declined by more than 80% over the past five decades, whereas adolescent mortality rates only improved by 41%–48% [11]. Furthermore, risky sexual behaviors and reproductive health problems in adolescence can have long-lasting consequences into adulthood and into the subsequent generation. For example, impaired fetal growth is more common in pregnancies occurring before the age of 18 years, and low birth weight is an important risk factor for adult-onset diabetes [12].

Adolescence provides an important phase of life to capitalize on the potential and resources in this age group. The International Conference on Population and Development (ICPD) held in Cairo, Egypt, in 1994 established a comprehensive definition of reproductive health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes." In line with the aforementioned definition of reproductive health, reproductive health care is defined as "the constellation of methods, techniques and services that contribute to reproductive health and well-being by preventing and solving reproductive health problems" [13]. The ICPD Program of Action further describes services included under the umbrella of sexual and reproductive health services (SRHS), such as family-planning counseling and services; prenatal and postnatal care and delivery; abortion services and postabortion care; treatment and prevention of reproductive tract and sexually transmitted diseases and infections including HIV; and information and counseling about human sexuality [13].

Despite the clear need for access to SRHS [14], coverage rates are low. Data from five countries in SSA with high rates of new HIV infections found that 7%–31% of males and 9%–58% of girls aged 15–24 years had been tested for HIV and received their results [5]. Less than half of young men in SSA reported using condoms at the time of the last sexual intercourse, and rates were even lower among young women [15]. In SSA, as many as 68% of adolescents have an unmet need for contraception [3]. Rates of skilled birth attendance—a critical intervention to reduce maternal and newborn mortality—are 55% in developing countries; coverage is similarly low among adolescent births, despite the higher risk related to young maternal age [16].

Efforts in recent years have focused on not only ensuring health service availability but also making its provision adolescent friendly—that is, accessible, acceptable, equitable, appropriate, and effective [17]. These efforts aim to increase the ability and willingness to obtain services, particularly among those adolescents who need them the most.

This is one of the six articles in a series designed to take stock of progress toward achieving the ICPD Program of Action at its 20th anniversary mark. This article aims to review the current literature to synthesize current evidence on improving adolescent access to and use of SRHS.

Methods

This review consists of four specific and related review questions as listed in Table 1. We examined data within the context of a framework that defines the following parameters (Table 2):

(1) "For whom?"—Population groups that are the beneficiaries of services. Of particular concern are marginalized groups (i.e., those who may be living at the fringes of society, such as adolescents who are homeless, incarcerated, or discriminated because of race, ethnicity, religion, social class, occupation (e.g., sex worker), or sexual orientation) because they are especially vulnerable to poor health outcomes. Other vulnerabilities to poor SRH outcomes include disability, gender inequalities and younger age, or developmental stage.
(2) "Where?"—Types of settings where service delivery takes place.
(3) "By whom?"—Types of provider delivering these services.
(4) "What?"—Types of SRHS delivered.

Information was drawn from existing reviews of the literature found by searching the Cochrane database and PubMed. We preferentially included reports that used systematic review methodology (i.e., reproducible and broad search strategy, clear inclusion/exclusion criteria, examination of biases, and strength of evidence). We also sought updated data about initiatives that were included in identified review articles. Furthermore, because published reviews often do not include gray literature, we

Table 1
Review questions

A. How effective are interventions to establish or improve clinic- or hospital-based health services on adolescent use of SRHS or commodities and/or on adolescent SRH impact in resource-limited settings?
B. How effective are interventions to establish or improve out-of-facility or community-based health services on adolescent use of SRHS or commodities and/or on adolescent SRH impact in resource-limited settings?
C. How effective are interventions to establish or improve health services (facility- or community-based) on the use of SRHS or commodities or SRH impact among vulnerable or marginalized adolescents in resource-limited settings?
D. How effective are IEC, social marketing, or mass media interventions on adolescent use of SRHS or commodities or on community acceptance or support for such services or commodities among adolescents in resource-limited settings?

SRHS = sexual and reproductive health services.