



Editorial

The State of Sex Education in the United States



For more than four decades, sex education has been a critically important but contentious public health and policy issue in the United States [1–5]. Rising concern about nonmarital adolescent pregnancy beginning in the 1960s and the pandemic of HIV/AIDS after 1981 shaped the need for and acceptance of formal instruction for adolescents on life-saving topics such as contraception, condoms, and sexually transmitted infections. With widespread implementation of school and community-based programs in the late 1980s and early 1990s, adolescents' receipt of sex education improved greatly between 1988 and 1995 [6]. In the late 1990s, as part of the "welfare reform," abstinence only until marriage (AOUM) sex education was adopted by the U.S. government as a singular approach to adolescent sexual and reproductive health [7,8]. AOUM was funded within a variety of domestic and foreign aid programs, with 49 of 50 states accepting federal funds to promote AOUM in the classroom [7,8]. Since then, rigorous research has documented both the lack of efficacy of AOUM in delaying sexual initiation, reducing sexual risk behaviors, or improving reproductive health outcomes and the effectiveness of comprehensive sex education in increasing condom and contraceptive use and decreasing pregnancy rates [7–12]. Today, despite great advancements in the science, implementation of a truly modern, equitable, evidence-based model of comprehensive sex education remains precluded by sociocultural, political, and systems barriers operating in profound ways across multiple levels of adolescents' environments [4,7,8,12–14].

At the federal level, the U.S. congress has continued to substantially fund AOUM, and in FY 2016, funding was increased to \$85 million per year [3]. This budget was approved despite President Obama's attempts to end the program after 10 years of opposition and concern from medical and public health professionals, sexuality educators, and the human rights community that AOUM withholds information about condoms and contraception, promotes religious ideologies and gender stereotypes, and stigmatizes adolescents with nonheteronormative sexual identities [7–9,11–13]. Other federal funding priorities have moved positively toward more medically accurate and evidence-based programs, including teen pregnancy prevention programs [1,3,12]. These programs, although an improvement from AOUM, are not without their challenges though, as they currently operate within a relatively narrow, restrictive scope of "evidence" [12].

At the state level, individual states, districts, and school boards determine implementation of federal policies and funds. Limited in-class time and resources leave schools to prioritize sex education in competition with academic subjects and other important health topics such as substance use, bullying, and suicide [4,13,14]. Without cohesive or consistent implementation processes, a highly diverse "patchwork" of sex education laws and practices exists [4]. A recent report by the Guttmacher Institute noted that although 37 states require abstinence information be provided (25 that it be stressed), only 33 and 18 require HIV and contraceptive information, respectively [1]. Regarding content, quality, and inclusivity, 13 states mandate instruction be medically accurate, 26 that it be age appropriate, eight that it not be race/ethnicity or gender bias, eight that it be inclusive of sexual orientation, and two that it not promote religion [1]. The Centers for Disease Control and Prevention's 2014 School Health Policies and Practices Study found that high school courses require, on average, 6.2 total hours of instruction on human sexuality, with 4 hours or less on HIV, other sexually transmitted infections (STIs), and pregnancy prevention [15]. Moreover, 69% of high schools notify parents/guardians before students receive such instruction; 87% allow parents/guardians to exclude their children from it [15]. Without coordinated plans for implementation, credible guidelines, standards, or curricula, appropriate resources, supportive environments, teacher training, and accountability, it is no wonder that state practices are so disparate [4].

At the societal level, deeply rooted cultural and religious norms around adolescent sexuality have shaped federal and state policies and practices, driving restrictions on comprehensive sexual and reproductive health information, and service delivery in schools and elsewhere [12,13]. Continued public and political debates on the morality of sex outside marriage perpetuate barriers at multiple levels—by misguiding state funding decisions, molding parents' (mis)understanding of programs, facilitating adolescents' uptake of biased and inaccurate information in the classroom, and/or preventing their participation in sex education altogether [4,7,8,12–14].

Trends in Adolescents' Receipt of Sex Education

In this month's *Journal of Adolescent Health*, Lindberg et al. [16] provide further insight into the current state of sex education and the implications of federal and state policies for

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adolescents in the United States. Using population data from the National Survey of Family Growth, they find reductions in U.S. adolescents' receipt of formal sex education from schools and other community institutions between 2006–2010 and 2011–2013. These declines continue previous trends from 1995–2002 to 2006–2008, which included increases in receipt of abstinence information and decreases in receipt of birth control information [17–19]. Moreover, the study highlights several additional new concerns. First, important inequities have emerged, the most significant of which are greater declines among girls than boys, rural-urban disparities, declines concentrated among white girls, and low rates among poor adolescents. Second, critical gaps exist in the types of information (practical types on “where to get birth control” and “how to use condoms” were lowest) and the mistiming of information (most adolescents received instruction after sexual debut) received. Finally, although receipt of sex education from parents appears to be stable, rates are low, such that parental-provided information cannot be adequately compensating for gaps in formal instruction.

Paradoxically, the declines in formal sex education from 2006 to 2013 have coincided with sizeable declines in adolescent birth rates and improved rates of contraceptive method use in the United States from 2007 to 2014 [20,21]. These coincident trends suggest that adolescents are receiving information about birth control and condoms elsewhere. Although the National Survey of Family Growth does not provide data on Internet use, Lindberg et al. [16] suggest that it is likely an important new venue for sex education. Others have commented on the myriad of online sexual and reproductive resources available to adolescents and their increasing use of sites such as [Bedsider.org](#), [StayTeen.org](#), and [Scarleteen](#). [2,14,22–24].

The Future of Sex Education

Given the insufficient state of sex education in the United States in 2016, existing gaps are opportunities for more ambitious, forward-thinking strategies that cross-cut levels to translate an expanded evidence base into best practices and policies. Clearly, digital and social media are already playing critical roles at the societal level and can serve as platforms for disseminating innovative, scientifically and medically sound models of sex education to diverse groups of adolescents, including sexual minority adolescents [14,22–24]. Research, program, and policy efforts are urgently needed to identify effective ways to harness media within classroom, clinic, family household, and community contexts to reach the range of key stakeholders [13,14,22–24]. As adolescents turn increasingly to the Internet for their sex education, perhaps school-based settings can better serve other unmet needs, such as for comprehensive sexual and reproductive health care, including the full range of contraceptive methods and STI testing and treatment services. [15,25].

At the policy level, President Obama's budget for FY 2017 reflects a strong commitment to supporting youths' access to age-appropriate, medically accurate sexual health information, with proposed elimination of AOUM and increased investments in more comprehensive programs [3]. Whether these priorities will survive an election year and new administration is uncertain. It will also be important to monitor the impact of other health policies, particularly regarding contraception and abortion, which have direct and indirect implications for minors' rights

and access to sexual and reproductive health information and care [26].

At the state and local program level, models of sex education that are grounded in a broader interdisciplinary body of evidence are warranted [4,11–14,27–29]. The most exciting studies have found programs with rights-based content, positive, youth-centered messages, and use of interactive, participatory learning and skill building are effective in empowering adolescents with the knowledge and tools required for healthy sexual decision-making and behaviors [4,11–14,27–29]. Modern implementation strategies must use complementary modes of communication and delivery, including peers, digital and social media, and gaming, to fully engage young people [14,22,23,27].

Ultimately, expanded, integrated, multilevel approaches that reach beyond the classroom and capitalize on cutting-edge, youth-friendly technologies are warranted to shift cultural paradigms of sexual health, advance the state of sex education, and improve sexual and reproductive health outcomes for adolescents in the United States.

Funding Sources

K.S.H. is supported by the National Institute of Child Health and Human Development #1K01HD080722-01A1.

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