

Getting Our Heads out of the Sand Using Evidence to Make Systemwide Changes

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I am thrilled to provide commentary for this set of articles from the Community Preventive Services Task Force (Task Force) in the current *American Journal of Preventive Medicine*¹⁻³; as a public health practitioner striving to promote health equity in an urban city, I need all of the evidence-based help I can get. This is especially true when it comes to reducing sexually transmitted infections (STIs) and the birth rate among teens in my city. In 2009, the teen birth rate in Baltimore City (64.4/1000) was double that of Maryland (31.2/1000).⁴ The birth rate among black teens (79.3/1000) was 2.8 times that of their white counterparts (28.4/1000).⁵ STI rates in 2009 for youth up to age 19 years in Baltimore are among the highest in the country—gonorrhea (1234.3/100,000) and chlamydia (4778.9/100,000)—with rates more than ten times higher in blacks than whites.⁵ According to the 2007 Youth Risk Behavior Surveillance (YRBS) system, the last year for which Baltimore-specific data are available, 67.1% of our teens had ever had intercourse, and 18.6% had debuted before the age of 13 years—over twice the national average.⁶

Statistics like these give urgency to the work we do. Even though the teen birth rate has been dropping over the last decade, the sociopolitical context within which these births take place is getting more and more toxic. These theme papers,¹⁻³ dedicated to analyzing the body of literature examining adolescent sexual behavior and its resulting outcomes, could not have come at a better time. Ever-rising unemployment rates along with continued cuts to social benefits programs and education are some of the social determinants of health that make teen pregnancy harder to prevent and that exacerbate the racial disparities that persist in teen birth rates.

The Task Force is to be commended on the clarity of its conceptual framework and methods used to determine the effectiveness of group-based comprehensive risk reduction (CRR) and abstinence education in promoting behaviors intended to reduce adolescent pregnancy, HIV, and STIs.¹⁻³ Briefly, outcomes for these two approaches were grouped into behaviors (delayed sexual initiation and condom use)

and biologic markers (pregnancy incidence and STIs). Moderator variables such as setting (school or community); type of moderator (adult or peer); intervention focus; and whether or not specific subpopulations were targeted were also evaluated to assess the extent to which any of these emerged as priority indicators.

The evidence base solidly demonstrates that interventions focused on teaching teens CRR (whether they promote abstinence above risk-reduction strategies, promote each equally, or deliver primarily or solely risk-reduction strategies) demonstrate significant effectiveness for the following: decreased sexual activity (activity or frequency); decreased risk behaviors (number of sexual partners, unprotected activity); decreased biologic outcomes (STI or pregnancy); and increased use of protection (only condom use was significant). Further, this analysis highlights the fact that CRR does not increase frequency of sexual activity or decrease age of initiation, a commonly quoted fear of potential harm.

Similarly, for abstinence education, the analysis notes that the evidence base is limited by a small number of studies of sufficient rigor and most of which were limited to participants aged 10–14 years; therefore, significant results of decreased sexual activity should be interpreted cautiously. Additionally, this analysis finds that abstinence education does not decrease condom use, a commonly quoted fear of potential harm.

As importantly, this analysis illustrates that although there were few studies that looked at cost effectiveness, the ones that did showed that delivering comprehensive risk reduction in schools was most cost effective. From a public health point of view, an intervention (CRR) that demonstrates effectiveness in younger and older teens, does not increase risky behaviors, and can be delivered in a cost-effective manner is a home run.

Research Gaps

The work of the Task Force clearly highlights areas where further research is needed to better detail “particular elements” of an intervention that make it more or less effective, such as the moderator variables detailed above. I would add that additional research is needed in the area of intergenerational sexual encounters. All too often, either during my time as a practicing primary care pedia-

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trician or as medical director of the largest school system in the country, this was quoted as a contributing factor to a teen becoming pregnant. Is either CRR or abstinence education effective in helping teens navigate this dynamic? Another area where research gaps persist is in regards to the effects of generational status on teen birth rates among Latinas and whether there are protective factors that can be attributed to cultural norms.

Conclusion

Public health is at its finest when it provides an evidence base for promoting population health at the ground level, while at the same time promoting the use of that evidence base for sound public policy that provides better opportunities for those who have been systematically marginalized.

New York City recently adopted a measure mandating sex education in the 6th or 7th grade as well as in the 9th or 10th grade using two evidence-based curricula.⁷ The curriculum used in the older grades is an evidence-based, comprehensive risk reduction approach that includes discussing the use of contraceptives. Standardizing sex education across the city's schools is part of a larger initiative aimed at improving the lives of minority youth. Bold policy decisions such as this acknowledge the consequences of early sexual initiation and that the lack of comprehensive risk reduction skills reach far beyond education and health-related outcomes. They also highlight the critical importance of providing youth with knowledge and opportunities to practice skill sets that will help them make well-informed decisions regarding their sexual and reproductive health for the rest of their lives.

Educational shifts such as the one that recently took place in New York City, and that are taking place elsewhere, underscore the importance of having an evidence base on which decisions can be made. They are clear examples of a health-in-all-policies approach that de-

mands that public health professionals be both advocates and accountable for the use of mounting evidence. It further highlights the importance of the work done by the Community Preventive Services Task Force in this comprehensive review of a controversial field.

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