

LETTER TO THE EDITOR

Changes in Sexual Behaviors Among High School Students

To the Editor:

In a recent article, Santelli et al [1] state that their “data suggest that both delayed initiation of sexual intercourse and improved contraceptive practice contributed equally to declines in pregnancy rates among high-school-aged teens during the 1990s.” This conclusion was derived from calculations based on decreases in initiation rates relative to decreases in rates of suboptimal contraceptive practice, yielding estimates that 53% of the pregnancy decline can be attributed to delayed initiation and 47% to improved contraception, with confidence intervals of about $\pm 25\%$. The authors acknowledge that care must be taken owing to these very large confidence intervals, but the equal-contribution conclusion is put forward nevertheless. As noted in the accompanying editorial [2], these results would not support a conclusion of *unequal* contributions, even if the estimated percents had been more divergent (yet similarly imprecise). But absence of evidence is not evidence of absence. The percents attributed to initiation and contraception are dependent and exhaustive, i.e., they must sum to 100% (other potential factors, such as fecundity changes, are excluded in this study). Thus, equal or roughly equal contributions would be possible only if the actual contribution of each factor were at or near 50%. Yet, given the large confidence intervals, this is just one of many plausible actualities that could have yielded the reported results. It is therefore erroneous to conclude that initiation and contraception changes contributed equally.

A second issue regards the pooling of data across the three racial/ethnic groups. The authors reported substantial between-group differences in change rates for both initiation and contraceptive practice. The 16% decline in sexual initiation in the combined group comprises a 14% decline among white teens, a 28% decline among black teens, and a 0% decrease among Hispanic teens. The 15% decline in contraceptive method risk comprises declines of 9% among white teens, 20% among black teens, and 24% among His-

panic teens. These fundamental differences suggest that any full-group conclusions will be of limited value and restricted to description rather than explanation, whereas meaningful explanatory conclusions would have to be group-specific.

Media coverage of this article has focused on the equal contribution conclusion (e.g., [3,4]). A greater value of this research might be in publicizing the substantial differences in sexual initiation and contraception practice changes across the three racial/ethnic groups of teens. These differences are unambiguously illustrated by simple percentages and change rates, and call for further discussion and investigation on their possible causes and meaning—and their implications for prevention policy and practice.

Respectfully submitted,

Norman A. Constantine, Ph.D.
Center for Research on Adolescent
Health and Development,
Public Health Institute,
Oakland, California
School of Public Health,
University of California, Berkeley,
Berkeley, California

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