

Response

To the Editor:

We thank Dr. Constantine for his letter that highlights some of the methodological complexities and some of the most important conclusions of our recent article on trends in teen pregnancy rates in the 1990s.

In our analysis, both delay in initiation of sexual intercourse and increased use of more effective contraception provided important, meaningful, and statistically significant contributions toward recent declines in teen pregnancy rates [1]. Specifically, we said that "Care should be taken in attributing changes in pregnancy rates to changes in behavior, given broad confidence intervals around these estimates. These 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; however, estimates varied among racial and ethnic groups." Dr. Constantine questioned whether we could assess these contributions as equal, given the wide confidence intervals. Statistically, we considered the contributions of the delay in initiation and increased use of contraception to our estimate of declining pregnancy risk; we found comparable contributions: 53% and 47%, respectively. Given the similarity of these estimates and broad confidence intervals around the estimates, they were not statistically different. We therefore suggested that changes in both behaviors contributed equally to the decline in pregnancy rates. This is a straightforward and reasonable statistical interpretation of the data.

Dr. Constantine questions our pooling of data across racial and ethnic groups, given substantial between-group differences. We respectfully disagree. National data sets such as the Youth Risk Behavior Survey (YRBS) and National Survey of Family Growth (NSFG) are systematically designed to provide national estimates for specific target populations and selected subgroups such as race/ethnic populations [2,3]. For the YRBS, the target population includes students in public and private high schools, in grades 9–12; for the NSFG, women aged 15–44 in the United States. The sampling methodology for the YRBS and NSFG produces population-based estimates for the three largest racial/ethnic subgroups (white, non-Hispanic; black, non-Hispanic; and Hispanic) and for the target population. The total target population estimates also include smaller

subgroups such as Asians and Native Americans. Given these sampling procedures, it is appropriate to provide both overall estimates and estimates for the largest subgroups, as the YRBS and the NSFG do regularly. Our reporting is consistent with a long history of survey analysis of these and other national surveys.

We appreciate Dr. Constantine's attention to the substantial differences we report among subgroups. As he points out, our analysis was designed to provide a description of, rather than an explanation for, these between-group differences. We hope that the recognition we have brought to these differences will encourage others to consider further analyses that may provide some explanatory data. The significant differences between changes in delayed initiation and contraceptive use as contributions to declining pregnancy risk across racial and ethnic groups further underscore the primary conclusion of our article: "teen pregnancy prevention efforts should continue to focus on both delay in initiation of intercourse and effective contraception"

Sincerely,

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References

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2. Potter F, Iannacchione V, Mosher W, et al. 1998. Sample design, sampling weights, imputation, and variance estimation in the 1995 National Survey of Family Growth. *Vital Health Stat* 1998;1–63.
3. Grunbaum JA, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance, United States, 2003. *MMWR* 2004;53:1–96.