Galleys for:

Changing Behavioral Risk for Pregnancy among High School Students in the United States, 1991-2007

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Abstract

Background: After dramatic declines in teen births and pregnancies from 1991 to 2005, teen birth rates in the United States increased in 2006 and in 2007. We examined behavioral determinants of these trends and the likely direction of future trends.
Methods: Pregnancy risk was estimated based on recent sexual activity, method of contraception used, and method-specific contraceptive efficacy, using data from young women on the national Youth Risk Behavior Survey (N~125,000). Weighted logistic and linear regression were used to test for linear and quadratic (curved) trends over time.
Results: Between 1991 and 2007, behavioral risk for pregnancy declined, with all of the decline occurring between 1991 and 2003. Improvements in contraceptive use from 1991 to 2003 were found in condom use, nonuse, and use of withdrawal. Recent sexual activity (past 3 months) was unchanged over the entire period, except among black students. Quadratic changes were found in pregnancy risk for black teens and in condom use among all teens and black teens, suggesting that trends had reversed or flattened out. While no change was found for any behavior between 2003 and 2007, pregnancy risk among sexually active teens demonstrated a borderline increase (p=.06) and small non-significant declines were seen for specific contraceptive methods. Pregnancy risk estimated from behavioral data correlated well with actual changes in teen pregnancy rates (1991-2004) and birth rates (1991-2006).
Discussion: After improvement in the 1990s and early 2000s, trends in behavioral risk for pregnancy appear to have stalled or even reversed among certain groups since 2003. These behavioral trends are consistent with the 2006 and 2007 increases in the teen birth rate. They may well portend further increases in 2008.

Introduction

      Teen birth and pregnancy rates declined dramatically between 1991 and 2005 – each by about a third [1] [2]; teen birth rates then rose unexpectedly in 2006 and again in 2007 [3]. Abortion ratios (abortions divided by live births) among teens show little change recently [4] suggesting that abortion is not an important factor in recent trends in teen birth rates. A variety of social and behavioral explanations have been suggested for declines in teen pregnancy after 1991 and for the recent increase in teen births [5, 6] Teen pregnancy rates are directly determined by sexual behaviors including rates of sexual intercourse and condom and contraceptive use. Substantial declines in teen pregnancy rates in the U.S. since 1991 have been primarily attributed to improved contraceptive use although reduction in sexual activity was an important contributor for younger teens [5, 7].   Research suggests that much of the difference in teen pregnancy rates between the U.S. and European high school students is the result of lower rates of contraceptive use, including sharply lower rates of pill use, among U.S. teens [8-11]. U.S. trends in adolescent sexual and contraceptive behaviors also reflect social forces such as concern about teen childbearing and HIV/AIDS and the success (or failure) of public health prevention activities such as sexuality education and access to condoms and contraception [5, 6, 12].

      Data from U.S. high school students for 1991-2007 suggest that trends towards reduced sexual experience and increased condom use during the 1990s and early 2000s have reversed or flattened recently among certain groups. Specifically, CDC has reported quadratic trends in sexual experience among male high school students and black students and condom use among all high school students, females and black youth [13]. Among all students, condom use rose from 46.2% in 1991 to a high of 63.0% in 2003 and then declined to 61.5% in 2007, suggesting a reversal in the trend. Although school surveys do not include those teens at the highest risk pregnancy (e.g., dropouts), behavioral trends in the school surveys parallel trends found in community-based surveys [14]. Relevant data from nationally-representative community-based surveys are not available after 2002.

      This paper explores trends in behaviors that lead directly to teen pregnancy, looking for patterns that may explain the recent rise in teen birth rates. In previous reports, we estimated declines in the risk of U.S. teens becoming pregnant using data on sexual activity and contraceptive use from the YRBS (1991 to 2001), [7] and National Survey of Family Growth (NSFG, 1995 to 2002) [5]. This paper extends those prior estimates for teen pregnancy risk using YRBS data from 2003, 2005, and 2007. Our primary research objective was to examine behavioral explanations for declines in teen births and pregnancy after 1991 and the 2006/2007 increases. A secondary objective was to further validate our method of estimating pregnancy risk from behavioral data.

Methods

      The YRBS is a school-based, self-administered, biennial national survey of U.S. private and public high school students [13-15].   This analysis used 9 rounds of data, covering the period from 1991 to 2007. The YRBS uses a three-stage clustered sample (1- county, 2- schools within counties and 3- classrooms within schools) to obtain cross-sectional data, which - when weighted accordingly - are representative of students in grades 9-12 in the 50 states and the District of Columbia. Hispanic and black youth are oversampled. These analyses were limited to young women, as teen birth data are generally reported only for women.

      The YRBS employs a combination of active and passive parental permission, depending on the usual practices of the sampled schools. The mix of these two has varied over time without any specific trend and appears not to influence the prevalence of reported behaviors [16]. The YRBS has used the same questions to assess sexual activity and condom and contraceptive use since 1991. The CDC IRB approved the collection of data in the National YRBS. The Columbia University IRB approved our analysis of public use data.

Created Variables

We calculated the risk of becoming pregnant based upon data on sexual activity (active within the 3 months before the interview), contraceptive method(s) used at last sexual intercourse, and method-specific contraceptive failure rates. These behavioral data were used to create the Pregnancy Risk Index (PRI) which reflects the probability that a woman will become pregnant, given her sexual activity and contraceptive use.

The PRI score for women who were not sexually experienced (never had sex) or not sexually active (in the past 3 months) was set to zero. Each sexually active woman was assigned a PRI score equal to the published one-year typical-use, contraceptive failure rates (CFRs) for the method she used at last sexual intercourse, e.g., 7 per 100 for the pill. These CFRs were calculated from the 1988 and 1995 NSFG pregnancy calendar data [17]. CFRs from the 1988, 1995 and 2002 NSFG have not changed over time [17, 18].

For women using two methods of contraception at last sexual intercourse, we multiplied the CFRs for the two methods (this was only calculable for condom and another method). Sexually active women using no method at last intercourse were assigned a PRI score of 85 per 100. [19]. We used race/ethnicity specific CFRs for 15-44 year olds because failure rates stratified by both age and race/ethnicity were not available. So, in sum, the PRI score represents each woman's risk of pregnancy in one year, assuming that her coital frequency and her consistency and correctness of contraceptive use were typical of her racial/ethnic group. We separately estimated pregnancy risk among all women and among sexually active women.

Correlation of Pregnancy Risk and Teen Birth and Pregnancy Rates

We compared pregnancy risk estimated from the YRBS (1991-2005) to actual pregnancy and birth rates for 15-19 years olds by race/ethnicity from the National Center for Health Statistics. Pregnancy rates were available through 2004 [2] and birth rates through 2006 [3], when we conducted our analyses.

To validate our method of estimating pregnancy risk from behavioral data, we compared trends in the PRI to trends in the actual pregnancy and births rates using Pearson correlation coefficients. We did this in two ways: by matching years exactly (i.e., compared the PRI for 2001 to the pregnancy rate for 2001) and with a one-year offset (e.g., PRI for 2001 to the pregnancy rate for 2002). The offset was used to reflect that the PRI represents behaviors that may lead to pregnancy in the year following the behaviors. For the *Same Year* analysis, we used birth rates through 2005 and pregnancy rates through 2003. The *Lagged Year* analysis used birth rates through 2006 and pregnancy rates through 2004. If the PRI correlates well with pregnancy rates, there should also be a similar correlation with birth rates, unless the proportion of pregnancies ending in abortion is changing. As noted above, abortion ratios have changed little recently [4].

Statistical Models

We modeled changes over time in sexual and contraceptive behaviors and PRI using weighted logistic and linear regression. Models controlled for demographic characteristics either by stratifying on the specific demographic characteristics (i.e., race/ethnicity or grade) or controlling for those characteristics within the multivariate model. We used STATA, Version 9.2, using the *svy* command to control for the weighted clustered survey design [20].

Each of our models included both a linear and quadratic term for time (these were orthogonal). For the linear regression analyses, a significant quadratic term identified curvilinear changes in the outcome with respect to time. For the logistic regression analyses, a quadratic term has a different meaning because the outcome is curvilinear (probability of a 1) with respect to time even without the quadratic term for time. Adding the quadratic term allows for the probabilities of the outcome to change direction with respect to time. In practice, we were interested in understanding whether the trend in the outcome, either decreasing

or increasing over time, was curved or U-shaped, indicating a leveling off or a reversal in direction of a trend. A statistically significant quadratic term, although suggestive of such a leveling off or reversal, is not sufficient evidence because the leveling off point is not defined.

So, to determine whether the outcome has leveled off or reversed with respect to time, we augmented our interpretation of the regression analyses with visual inspection of trends in behavioral prevalence presented in Figures 1 & 2. This visual inspection of data suggested a reversal of trends or flattening around 2003. Thus, we also separately tested for behavioral change from 2003-2007, using weighted logistic and linear regression.

Results

Validation of the Pregnancy Risk Index

In general we found that PRI scores correlated well with pregnancy rates and birth rates for 15-19 years olds in the *same year* (R^2=.78 and .80 respectively) and *lagged year* (R^2=.78 and .79, Table 1). We found strong correlations between pregnancy risk and pregnancy and birth rates for non-Hispanic whites (0.79-.84) and non-Hispanic blacks (0.88-0.96). Lower correlations were found for Hispanic teens (0.26-0.43). Inspection of the data suggested that 1995 was an outlier, with a pregnancy risk index score that was much higher than 1993 and 1997. When this data point was eliminated, adjusted correlations of 0.79-0.82 for Hispanic teens were found.

	Pregnancy Rates		Birth Rates	
Table 1. Correlation of Pregnancy Risk Index (1991-2007) with Pregnancy Rates (1991-2004) and Birth Rates (1991-2006), United States				
	Same Year	Lagged Year	Same Year	Lagged Year
All Women	0.78**	0.78**	0.80**	0.79**
White, Non-Hispanic	0.79**	0.80**	0.84**	0.84**
Black, Non-Hispanic	0.94***	0.96***	0.88**	0.94**
Hispanic	0.36	0.26	0.43	0.30
Hispanic (adjusted)	0.79*	0.82*	0.77**	0.80**
* p < .05; ** p<.01; *** p < .001				
Pregnancy Risk Index data calculated from the national Youth Risk Behavior Survey				
Same year: correlates PRI score with pregnancy or birth rates for the same year				
Lagged year: correlates PRI score with pregnancy or birth rates for the subsequent year				
Pregnancy and birth rates from the National Center for Health Statistics, references 2 and 3.				
Hispanic adjusted correlation drops data point for 1995				

Trends in Sexual Activity, Contraceptive Risk Index and Pregnancy Risk Index

Figure 1 and Table 2 display the trends in sexual activity among sexually active high school females. Sexual activity declined only among black females. A downward but non-significant trend was found for white females (p=.513). No change was evident in sexual activity for any group between 2003 and 2007. We would note that previous reports on sexual behavior trends have reported similar findings [13], although these reports did not stratify by both sex and race/ethnicity.

Pregnancy risk overall declined linearly from 1991-2007 among non-Hispanic, but not among Hispanic teens (Figure 2). A single significant quadratic factor was found for the PRI among non-Hispanic black teens (p=.019); this was also visible as a reversal of trends in Figure 2. Figure 2 suggests that declines in pregnancy risk during the 1990s have been followed by a small increase. However, no significant increases were found in pregnancy risk from 2003 and 2007 (not shown in Figure 2).

Among sexually active young women, pregnancy risk decreased among all groups between 1991 and 2007. Because pregnancy risk among sexually active teens is entirely dependent upon contraceptive

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use, this decrease reflects improved contraceptive use. Again, we found a single significant quadratic coefficient for black women (p=.026). Similarly, a reversal in the PRI for young black women.

Between 2003 and 2007, we found a borderline increase in pregnancy risk among sexually active teens (p=.063, Table 2), reflecting an overall decline in contraceptive efficacy in this group.

Fig 1. Trends in Sexual Activity among High School Females by Race/ Ethnicity, Youth Risk Behavior Survey, 1991-2007
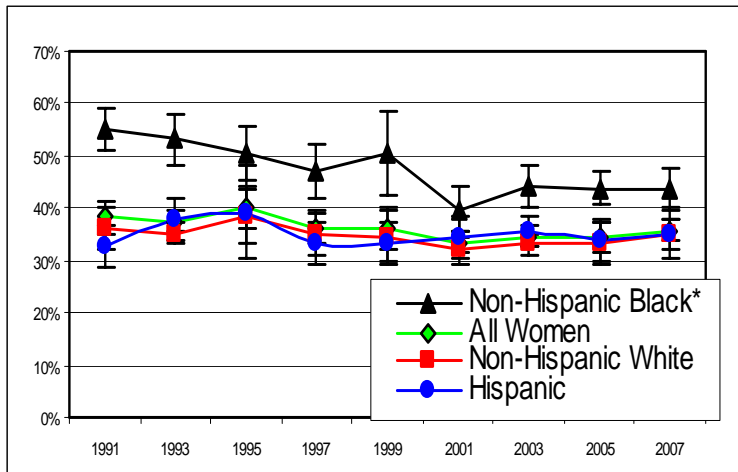
*significant linear coeff. (p<.05)

Fig 2. Trends in Pregnancy Risk among High School Females by Race/ Ethnicity, Youth Risk Behavior Survey, 1991-2007
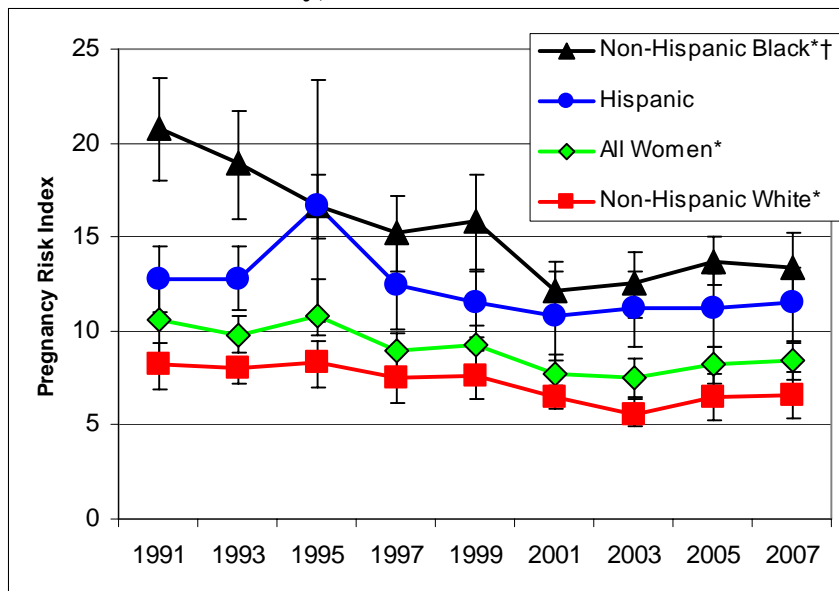
*significant linear coeff. (p<.05)   †significant quadratic coeff. (p<.05)

Trends in Individual Contraceptive Methods

Use of several individual contraceptive methods improved between 1991 and 2007 (Figure 3 and Table 3). We found increases in condom use and decreases in use of withdrawal and use of no method, overall and among each subgroup. Quadratic trends were found in condom use for all females and among blacks, indicating flattening out or a possible reversal in previous trends. A quadratic trend was also found

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for use of no method among blacks, which appears as an upturn or plateauing in non-use in the most recent years (Figure 3). We found no significant trends in individual methods of contraception from 2003 to 2007.

Pill use among Hispanics and blacks declined from 1991 to 2007 with most of the decline occurring between 1991 and 2001 (Figure 3). Among Blacks, pill use appeared to improve after 2001, as indicated by a significant quadratic trend, although no change was found for 2003-2007. Use of injection has only been measured in the YRBS since 1999 and it has been relatively low, averaging 4-7% in recent years. No recent trends in use were found.

Table 2. Linear and Quadratic Trends in Sexual Activity and Risk of Pregnancy, High School Females, United States, 1991-2007, National Youth Risk Behavior Survey

| Trends from:		No. Respondents	1991-2007				2003-2007	
			Linear Time Coeff.		Quadratic Time Coeff.		Linear Time Coeff.	
FEMALES			**Odds Ratio**	P value	**Odds Ratio**	P value	**Odds Ratio**	P value
Sexually Active in Past 3 Months	All	60 682	**0.994**	0.146	**1.000**	0.686	**1.009**	0.638
	White	24 531	**0.997**	0.513	**1.001**	0.622	**1.024**	0.302
	Black	15 411	**0.976**	0.000	**1.002**	0.324	**0.991**	0.735
	Hisp	16 138	**1.008**	0.243	**0.999**	0.644	**0.993**	0.818
			Beta	P value	**Beta**	P value	**Beta**	P value
Pregnancy Risk Index (Overall)	All	60 140	**-0.166**	0.000	**0.008**	0.278	**0.212**	0.180
	White	24 391	**-0.123**	0.001	**0.004**	0.663	**0.252**	0.160
	Black	15 154	**-0.404**	0.000	**0.039**	0.019	**0.200**	0.498
	Hisp	16 022	**-0.106**	0.169	**0.003**	0.839	**0.093**	0.797
Pregnancy Risk Index (Among Sexually Active Teens)	All	22 777	**-0.328**	0.000	**0.016**	0.228	**0.564**	0.063
	White	8 503	**-0.283**	0.000	**0.005**	0.770	**0.548**	0.182
	Black	7418	**-0.420**	0.000	**0.047**	0.026	**0.551**	0.288
	Hisp	5 468	**-0.429**	0.006	**0.023**	0.476	**0.457**	0.539

Pregnancy risk index overall calculated from behavioral data in the national YRBS on sexual activity in past 3 months, and contraceptive use at last sexual intercourse, and published contraceptive failure rates, references 17 and 19.

Pregnancy risk index (among sexually active teens) calculated from behavioral data in the national YRBS on contraceptive use at last sexual intercourse and published contraceptive failure rates, references 17 and 19.

Table 3. Linear and Quadratic Trends in Contraceptive Method Use at Last Sex Among Sexually Active High School Females, United States, 1991-2007, National Youth Risk Behavior Survey

	Trends from:		1991-2007				2003-2007	
			Linear Time Coeff.		Quadratic Time Coeff.		Linear Time Coeff.	
FEMALES		No. Respondents	**Odds Ratio**	P value	**Odds Ratio**	P value	**Odds Ratio**	P value
Condom at Last Sex (Sex Active)	All	23 098	**1.041**	0.000	**0.997**	0.021	**0.978**	0.341
	White	8 618	**1.036**	0.000	**0.998**	0.231	**0.977**	0.474
	Black	7 555	**1.047**	0.000	**0.992**	0.000	**0.969**	0.475
	Hisp	5 517	**1.064**	0.000	**0.998**	0.267	**1.002**	0.965
Pill at Last Sex	All	22 803	**0.991**	0.161	**1.001**	0.558	**0.961**	0.148
	White	8 518	**1.003**	0.740	**0.999**	0.787	**0.962**	0.234
	Black	7 426	**0.950**	0.000	**1.006**	0.008	**0.995**	0.940
	Hisp	5 472	**0.971**	0.022	**1.001**	0.861	**0.913**	0.220
Injection at Last Sex	All	7 326					**0.961**	0.574
	White	2 892					**1.042**	0.685
	Black	2 072					**0.906**	0.277
	Hisp	1 932					**0.834**	0.136
Withdrawal at Last Sex	All	22 803	**0.954**	0.000	**1.002**	0.194	**1.003**	0.929
	White	8 518	**0.950**	0.000	**1.003**	0.128	**1.004**	0.947
	Black	7 426	**0.970**	0.006	**1.005**	0.112	**1.092**	0.174
	Hisp	5 472	**0.944**	0.000	**0.997**	0.288	**0.916**	0.156
No Method at Last Sex	All	22 803	**0.978**	0.000	**1.001**	0.304	**1.057**	0.080
	White	8 518	**0.983**	0.050	**1.000**	0.898	**1.073**	0.155
	Black	7 426	**0.968**	0.000	**1.005**	0.015	**1.053**	0.344
	Hisp	5 472	**0.975**	0.022	**1.001**	0.647	**1.028**	0.631

We controlled for race and grade in each regression, except for the race-stratified regressions, when we controlled only for grade.

Figure 3. Trends in Prevalence of Contraceptive Use at Last Sex among High School Females by Race/ Ethnicity, Youth Risk Behavior Survey, 1991-2007
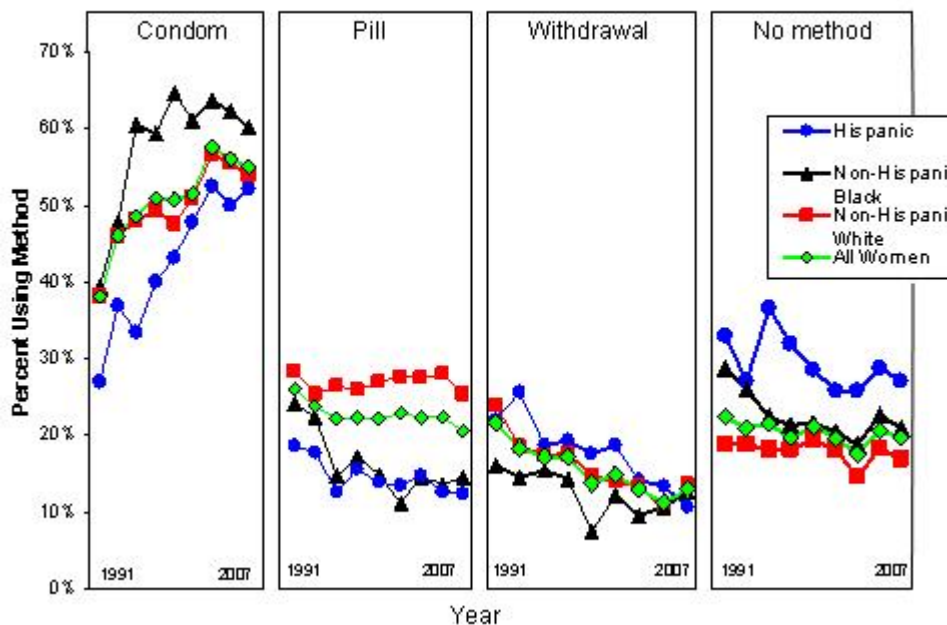
Discussion

After major improvement in the 1990s and early 2000s, behavior change related to teen pregnancy risk appears to have stalled or reversed after 2003. Important improvements in contraceptive use and pregnancy risk were found between 1991 and 2007, with improvements generally occurred between 1991 and 2003. Pregnancy risk behaviors did not change significantly after 2003, although contraceptive behaviors appeared to be moving toward greater risk of pregnancy. A single indicator (pregnancy risk among sexually active teens) showed a borderline increase (p=.06) between 2003 and 2007. In sum, these behavioral trends are consistent with the 2006 and 2007 increases in the teen birth rate and may well portend further rises in 2008. Thus, the increases in teen births in 2006 and 2007 may be a harbinger of future trends.

These data suggest that contraceptive use was a key driver in changing teen pregnancy rates -- with little significant change in sexual activity, except among black teens. Improvements in contraceptive use in the 1990s and early 2000s were found primarily for condom use, nonuse, and use of withdrawal. Pill use declined significantly among Hispanics and blacks, coincident with the increase in condom use. Quadratic trends suggested a reversal in trends in condom use after 2003 – overall and among black teens. Thus, declining contraceptive use may be the primary determinant of the 2006 increase in birth. Additional years of data are needed to fully understand this increase.

This study adds to the body of evidence supporting the validity of the Pregnancy Risk Index and the use of behavioral data to estimate pregnancy risk. In this study, we found that pregnancy risk correlated well with pregnancy and birth rates. In previous studies, we found that the rate of decline in the PRI followed the rate of decline in pregnancy rates [5, 7]. We note that the PRI method includes a variety of assumptions and should not be expected to directly estimate pregnancy rates. Moreover, behavioral estimates generally include estimates of variance and studies of pregnancy risk based on survey samples must also consider variance in the PRI.

Our findings on trends in sexual activity may seem at odds with previous reports about declining sexual involvement among young women reported from the YRBS [13]. They are not. In published reports from the CDC, sexual experience reported in the YRBS declined from 1991 to 2007 (50.8% to 45.9%,

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p<.05), with no significant decline in recent sexual activity during the same time period (38.2% to 35.6%, ns) [13]. Our data in Figure 1 for sexual activity among all women are identical to those in the CDC report. (CDC did not report data broken down by both gender and race/ethnicity.) The seeming discrepancy between a decline in sexual experience and no change in recent sexual activity is the result of a borderline increase in sexual activity among sexually experienced women from 1991 to 2007 (75.5% to 77.7%, p=.063).

Our finding about the importance of contraception in changing teen pregnancy risk is consistent with historical trends in teen fertility in other developed nations where teen fertility declined dramatically in the later half of the 20th century while the median age of coitus declined [8]. This finding is also consistent with historical trends in the U.S. where contraceptive method use has changed dramatically over relatively short time periods, particularly as new contraceptive methods such as the pill and Depo Provera became widely available [21, 22].

This paper addresses the behavioral determinants of teen fertility and attempts to understand what is currently a two year reversal in teen birth rates. However, the increase in teen birth rates in 2006 and 2007 was accompanied by increases in fertility among adult women and may reflect broader social trends. A wealth of research suggests that teen fertility is influenced by educational and economic opportunities, income disparities, and social mores about sexuality, contraception, and childbearing [6, 23]. Among these possible social forces, we see few patterns that might first decrease and then increase teen fertility. For example, economic opportunities increased during the 1990s and the percentage of families in poverty declined [24]. However, poverty also declined in the mid to late 1980s, when teen birth rates rose.

Perhaps, the most direct policy influence that could explain both increased condom use and delay in initiation of coitus is concern about HIV [12]. During the late 1980s and 1990s, public health officials repeatedly raised concerns about an impeding epidemic of HIV among youth and improvements in behavior were well-documented [25]. As such, recent trends in our data about lower condom use and stagnant trends in sexual activity may suggest faltering of HIV prevention efforts among U.S. youth. Other communities, such as men-who-have-sex-with-men have experienced such faltering, given difficulties in maintaining a strong focus on HIV prevention and decreasing personal concern among community members; this process has been called prevention fatigue or behavioral disinhibition [26]. Thus, rising teen pregnancy rates in the U.S. could be an indirect consequence of weakened HIV prevention efforts among youth.

Limitations

Several limitations temper these findings. The data were self- reported by high school students. Moreover, while behavior trends appear to have stagnated or even reversed, these recent movements are often small and not statistically significant. Time and additional data should provide a more complete picture.

We note several caveats concerning the comparison of PRI scores to actual pregnancy and birth rates. First, rates of pregnancy and births and contraceptive failure rates are not available for U.S. high school youth. While high school youth represent a considerable proportion of all teens becoming pregnant, particularly at younger ages, out-of-school youth are at greater risk of pregnancy, as they more like to engage in health risk behaviors including sexual activity and contraceptive non-use [27]. However, behavioral trends in the school surveys parallel trends found in community-based surveys [14]. Even so, at best trends in behaviors among high school youth are proxy measures for trends among all teens. This assumption could be influenced by changing dropout rates; however, these rates have not changed dramatically over time [28]. Thus, if our method is valid, estimated pregnancy risk and pregnancy rates should be well correlated over time and across demographic subgroups. We found this to be generally true.

Second, the PRI is unlikely to equal the actual pregnancy rate for a number of reasons. The PRI represents the *risk of becoming pregnant* while pregnancy rates report the *outcome of pregnancies*. Pregnancy outcomes occur systematically later than conception, so teens are older at the end than the initiation of a pregnancy. For example, a teen can become pregnant at age 15 but deliver a baby nine months later at age 16. However, if the PRI is an accurate measure of pregnancy risk, trends in the PRI

should parallel trends in pregnancy rates and PRI estimates should demonstrate a strong correlation with the actual teen pregnancy rate for the same year or the subsequent year. Again, we found this was true.

Public Policy Implications

      If the U.S. wants to effectively address teen pregnancy rates, reinvigorated efforts are needed at a state and national level to promote contraceptive use among teens through sex education and health services. While these data suggest a central role of contraception in shaping pregnancy risk, increasingly, national policy from 1998 to 2008 has emphasized promotion of abstinence from sexual behavior until marriage and focused on failures of contraception [29]. At the same time, the federal government, in concert with state governments, has expanded reproductive health services for women through Medicaid waivers for the family planning program and expanded health insurance coverage for teenagers through the SCHIP program. Divergence in public policy is particularly apparent among states. Certain states such as California have greatly expanded publicly-supported reproductive health services and comprehensive sexuality education and purposively eschewed abstinence-only programs [30, 31]. Other states such as Texas have embraced abstinence education through the public schools and moved to implement parental consent requirements for reproductive health care for minor adolescents [32].

      The European experience in reducing teen fertility also suggests that efforts to improve teen contraceptive use are warranted. European nations have reduced teen fertility primarily by encouraging contraceptive use. For example, Dutch parents, compared to parents in the U.S., are more likely to accept teen sexual activity and to expect responsible contraception use [33]. While European teens are not more likely to initiate sex during the high school years compared to U.S. teens, they are much more likely to use contraception and to use more effective contraceptive methods [9, 11]. A similar emphasis of teen responsibility to use contraception (unless planning pregnancy) is needed in the U.S.

      To create a national consensus, the U.S. would benefit from a collective national dialogue about teen sexuality and the importance of preventing unplanned pregnancy and sexually transmitted infections. The Netherlands went through such a period of soul searching and consensus building in the 1970s [34, 35]; today they have among the lowest teen pregnancy rates in the world. The U.S. might redirect its energy from persistently divisiveness political debates around sexuality education and abortion to support reinvigorated efforts to prevention of unplanned pregnancy by promoting the importance of consistent and effective contraception and protection against STIs. A consensus among adults on how to promote health sexuality would benefit teens as they struggle with the perils and perplexities of emerging adolescent sexuality.

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