What Do We Know About Trends in Adolescent Sexual Behavior in the United States?

John S Santelli Heilbrunn Department of Population and Family Health and The Guttmacher Institute

> February 4, 2009 Adolescent Sexual Health Symposium



Perspectives on Adolescent Sexual Behavior

- Public health perspectives
- Social determinants/ demographic perspectives
- Public policy perspectives
- Cultural and religious perspectives
- Rights perspectives
- Sexual health





Public Health Importance of Adolescent Sexual and Reproductive Health

- Sexually active teens
 - Highest rates for many STIs
 - Highest age-specific proportion of unintended pregnancy
- Initiation of sexual intercourse:
 - Near zero risk of deleterious health outcomes
 - State of considerable risk
- Contraception can be highly effective in reducing pregnancy
- Risk reduction can be highly effective in reducing STI risk



Gonorrhea — Age- and sex-specific rates: United States, 2004



Division of STD Prevention





Teen Birth Rate Rises in US, Reversing a 14 Year Trend

- ↓ teen births/ pregnancies 1991-2005
 - Larges ↓ in African Americans and youngest teens
- Teen birth rates rose in 2006
 - 3% increase 15-17 year olds
 - 4% increase 18-19 year olds
 - Declined for 10-14 year olds
- Total fertility rose 3%
- Nonmarital birthrate rose 7%



Figure 4. Pregnancy, birth, abortion, and fetal loss rates for teenagers 15-19 years, by race and Hispanic origin: 1990, 1995, 2000, and 2002



SOURCE: CDC/NCHS, Division of Vital Statistics, Published reports.

The "Epidemic" of Teen Pregnancy Birth Rates, U.S. 1950- 2006 (per 1,000 girls)



Proportion of Teen Births to Unmarried Teens



A Risk Factor Framework for Understanding Adolescent Sexual and Reproductive Health



An Integrated Risk Factor Model for Adolescent Reproductive Health Outcomes



Risk and Protective Factors in Shaping Adolescent SRH

- Biopsychosocial factors that affect adolescent reproductive health in developing countries
 - Individual-level factors
 - Peer-level factors
 - Family-level factors
 - Community-level factors
- Biopsychosocial factors influence proximate behaviors and reproductive outcomes:
 - Sexual debut, condom and contraceptive use, multiple sexual partners
 - Pregnancy, STI infection, HIV infection, early child bearing

Individual Risk and Protective Factors

- Earlier onset of puberty
- Older age
- Male gender
- Personal resilience, e.g., intelligence, educational achievement
- Risk taking "personality"
- Substance use
- Adverse childhood experience

Peer Risk and Protective Factors

- Friends have sex
- Partner sexually active
- Involvement in pro-social behaviors
- Married/permanent sexual partner (protective or not?)
- Sexual coercion/ interpersonal violence

Family Risk and Protective Factors

- Intact two-parent family (protective)
- Parents: limit setting, communication, values
- Urban residence
- Connection to adult role models

Community Risk and Protective Factors

- Educational opportunities
- Life opportunities
- Socio-economic status
- Social norms about marriage & childbearing
- Attachment to school and community
- Adult role models

Teen Pregnancy Risk: Why Are US Rates Changing (and So High)?

- Sexual activity?
- Contraceptive use?
- HIV prevention and sexuality education?
- Access to contraception?
- More equitable income distributions?
- Lower societal acceptance of contraceptive use?
- Higher fertility among women in their 20s?

Ever had Sexual Intercourse, Never Married Adolescent Females, NSYW, NSFG, YRBS

Female Contraceptive Use at First Intercourse by Year of First Premarital Intercourse, NSFG, 2002

Ever had Sexual Intercourse, Grades 9-12, National YRBS

Condom and Contraceptive Use at last Sex, Women in Grades 9-12, National YRBS

Explaining Recent Declines in Adolescent Pregnancy in the United States: The Contribution of Abstinence and Improved Contraceptive Use JS Santelli, LD Lindberg, LB Finer, S Singh (AJPH, 2007)

- Data from the 1995 and 2002 NSFG
- Estimated pregnancy risk over time based on changes sexual activity and contraceptive use
- Pregnancy Risk Index (PRI)
- Among 15-17 year olds
 - \downarrow Sexual activity explained ~1/4 of \downarrow in PRI
 - \uparrow Contraceptive use ~3/4 \downarrow in PRI

Changing Behavioral Risk for Pregnancy Among High School Students in the U.S., 1991-2007

John S Santelli, Mark Orr, Laura D Lindberg, Daniela Diaz

- National YRBS trends 1991-2007
- Falling and rising pregnancy risk among teens
- Reasons for the ↑ teen birth rate in 2006

Kecent Sexual Activity, High School Girls by Race, YRBS, 1991-2007

Trends in Prevalence of Contraceptive Use at Last Sex (YRBS) by race, 1991-2007

Trends in the Pregnancy Risk Index (PRI) among High School Girls

European Teens Compared to the U.S.

Teens (Godeau et al, Santelli et al 2008)

- Data from the HBSC and YRBS surveys
- The condom and the pill are the most common choices among European and US youth
- Pill use more common among European youth
 - Many European teenagers opted for the "double Dutch" method of using both condoms and the pill
- Contraceptive use among young teenagers is particularly high (and pregnancy low) in countries like the Netherlands
 - Parents are strongly accepting of teenage contraceptive use
 - Assure adolescent access to contraception and sex education

Condom Use at Last Sex Among 15 Year-Old Males: U.S. and Select European Countries

** For NY State we used 9th grade students. Based on the national YRBS data 9th grade students have a mean age of 14.7 years at time of survey administration.

Condom Use at Last Sex Among 15 Year-Old Females: U.S. and Select European Countries

** For NY State we used 9th grade students. Based on the national YRBS data 9th grade students have a mean age of 14.7 years at time of survey administration.

Pill Use at Last Sex Among 15 Year-Old Females: U.S. and Select European Countries

** For NY State we used 9th grade students. Based on the national YRBS data 9th grade students have a mean age of 14.7 years at time of survey administration.

Summary

- After improvement in the 1990s and early 2000s, sexual behavioral change related to teen pregnancy appears to have stalled or even reversed
- Recent behavioral trends portend stagnant or even rising teen birth and pregnancy rates through 2008
- Reinvigorated efforts to promote teen condom and contraceptive use are needed
- New vision for sexual health in America

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Extra Slides

Teen Pregnancy Risk Over Time: What's <u>Really</u> Changed?

Distal determinants:

- <u>Concerns about HIV and other STIs</u>
 - Prevention fatigue recently
- Declining social acceptance of teen childbearing
- A more conservative social climate, emphasis on abstinence at state and local level

Proximate variables

Intercourse variables: Timing of first intercourse

Percent of women who ever had intercourse

Time spent in marriage (separation, divorce)

Frequency of intercourse

Conception variables: Contraceptive use

Sterilization

Infertility/ fecundity

Pregnancy outcome (gestational) variables:

Miscarriage and stillbirth

Induced abortion

An Organizing Framework: Adolescent Risk Factors for Teen Pregnancy

Biopsychosocial factors

Pubertal timing

Race/ethnicity

Religion

Labor force participation

Education

Income

Access to health care

Family background

Community environment (economic, social, etc)

Coercion/ abuse

Teen Pregnancy Risk Over Time: What's Really Changed?

Have we made effective policy and programmatic changes in:

- Abstinence or comprehensive sex education?
- Improved access to reproductive health services?
- Welfare reform?

Teen Pregnancy Risk Over Time: What's Really Changed?

Have we dramatically:

- Reduced poverty?
- Stabilized the American family?
- Improved economic opportunities?
- Become more religious?
- Reduced sexual coercion?

Political and Policy Direction for Changin Adolescent Sexual Behavior

- Should the U.S. focus on improving contraceptive use or promoting abstinence?
- European experience: is it relevant for the US?

Ever Had Sex, High School Girls by Race, YRBS, 1991-2007

Trends in Ever Having Oral Sex

	1991 NSM	1992 NHSLS	2002 NSFG
	(20-24 years)	(18-24 years)	(18-24 years)
Men, Gave	67%	72%	66%
Men, Received	75%	74%	76%
Women, Gave	na	69%	72%
Women, Received	na	75%	76%

1991 National Survey of Men, 1992 National Health and Social Life Survey, 2002 National Survey of Family Growth

Teen Pregnancy and Sexually Transmitted Diseases in the U.S.

- 745, 000 pregnancies under age 20 (2004)
 - Births 57%, abortions 27%, fetal loss 16%
 - 80-90% are unplanned or mistimed
 - ~ ½: no contraceptive use
- 9.5 million STIs among youth
 - ~ ½ new infections are under 25 years
 - ~ 20% under 20

1950 1954 1958 1962 1966 1970 1974 1978 1982 1986 1990 1994 1998 2002 2006

Percentage of Births to Unmarried Teens

Trends in Adolescent Sexual Behaviors, 1960s - 1980s, U.S.

- **\uparrow\uparrow\uparrow** Sexual experience (began in the 60s)
- $\leftrightarrow \qquad \text{Condom use / 1970s}$
- $\uparrow\uparrow\uparrow$ Condom use / 1980s
- \downarrow Pill use
- **Contraceptive use @ first intercourse**

Trends in Adolescent Sexual Behaviors, 1988-2007, U.S.

- $\leftrightarrow \downarrow$ Sexual experience
- $\uparrow\uparrow\leftrightarrow$ Condom use
- $\downarrow \uparrow$ Pill use
- **Contraceptive use @ first intercourse**
- ↑ New methods

