

THE HARMFUL EFFECTS OF EARLY SEXUAL ACTIVITY
AND MULTIPLE SEXUAL PARTNERS AMONG WOMEN:
A BOOK OF CHARTS

ROBERT E. RECTOR
KIRK A. JOHNSON, PH.D.
LAUREN R. NOYES
SHANNAN MARTIN



Copyright © 2003 by The Heritage Foundation

Published by The Heritage Foundation
214 Massachusetts Ave., NE
Washington, DC 20002
202-546-4400
heritage.org

ISSN 0272-1155

Printed in the United States of America

THE HARMFUL EFFECTS OF EARLY SEXUAL ACTIVITY
AND MULTIPLE SEXUAL PARTNERS AMONG WOMEN:
A BOOK OF CHARTS

ROBERT E. RECTOR
KIRK A. JOHNSON, PH.D.
LAUREN R. NOYES
SHANNAN MARTIN

THE HERITAGE FOUNDATION
JUNE 23, 2003

NOTE: Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

INTRODUCTION

This report examines the linkages between early initiation of sexual activity, number of non-marital sex partners, and human well-being. In general, the earlier a woman begins sexual activity, the greater the number of non-marital sex partners she is likely to have over the course of her life. Early initiation of sexual activity and higher numbers of non-marital sex partners are linked in turn to a wide variety of negative life outcomes, including increased rates of infection with sexually transmitted diseases, increased rates of out-of-wedlock pregnancy and birth, increased single parenthood, decreased marital stability, increased maternal and child poverty, increased abortion, increased depression, and decreased happiness.

The study is based on the National Survey of Family Growth, a survey fielded in 1995 to a nationally representative sample of roughly 10,000 women between the ages of 15 and 44, sponsored and funded by the Centers for Disease Control of the U.S. Department of Health and Human Services. Because men are not included in the NSFG, they are not included anywhere in this report.

Initiation of Sexual Activity and Number of Sex Partners

The earlier a woman begins sexual activity, the more sexual partners she is likely to have during her lifetime. Girls who begin voluntary sexual activity at ages 13 or 14 will have, on average, more than 13 voluntary non-marital sex partners during their lives. By contrast, women who begin sexual activity in their early 20s will have, on average, 2.7 sexual partners during their lives.

Women who begin sexual activity at early ages also have far higher turnover rates among sexual partners. (The sex partner turnover rate may be defined as the number of sex partners per year of sexual activity.) Women who become sexually active at ages 13-14 have a sex partner turnover rate that is four times higher than the rate found among those who initiate sex activity in their early 20s.

Negative Consequences of Early Sexual Activity

Beginning sexual activity at an early age is likely to have permanent negative consequences on the lives of young women. These enduring negative effects can be physical, psychological, social, and economic. The harmful effects are most pronounced for women who begin sexual activity in teen years; many will be passed on to future generations. Data from the NSFG showcase the negative consequences of early sexual activity, which include the following:

- Beginning sexual activity at a young age greatly increases the probability of becoming infected with sexually transmitted diseases (STDs). Girls who began sexual activity at age 13 are twice as likely to become infected by an STD as girls who started sexual activity at age 21.
- Women who begin sexual activity at an early age are far more likely to become pregnant and give birth out-of-wedlock. Nearly 40 percent of girls who commence sexual activity at ages 13 or 14 will give birth outside marriage. By contrast, 9 percent of women who begin sexual activity at ages 21 or 22 will give birth outside marriage.

- Women who begin sexual activity at earlier ages are more likely to become single mothers. Women who became sexually active at ages 13 or 14 are more than three times as likely to become single parents than are women who commence sexual activity in their early 20s.
- Early sexual activity seriously undermines girls' ability to form stable marriages as adults. When compared to women who began sexual activity in their early 20s, girls who initiated sexual activity at ages 13 or 14 were less than half as likely to be in stable marriages in their 30s.
- Early sexual activity is linked to higher levels of child and maternal poverty. Some 27 percent of mothers who began sexual activity at ages 13 or 14 were living in poverty at the time of the survey. By contrast, 11.7 percent of mothers who began sexual activity in their early 20s were poor at the time of the survey.
- Girls who begin sexual activity at an earlier age are far more likely to have abortions. Nearly 30 percent of girls who started sexual activity at ages 13 or 14 have had an abortion. By contrast, some 12 percent of girls who began sexual activity in their early 20s have had an abortion.
- Beginning sexual activity at an older age is linked to higher levels of personal happiness. More than half the women who began sexual activity in their early 20s report that they are currently "very happy" in life. By contrast, only a third of women who began sexual activity at ages 13 or 14 report that they are "very happy."

The Negative Consequences of Increased Numbers of Non-Marital Sexual Partners

On average, women are best off in life if they are sexually active only within the bounds of marriage. Increases in the number of non-marital sex partners are linked to a very broad array of negative life outcomes.

- An increase in the number of non-marital sex partners greatly increases the probability that one will become infected by sexually transmitted diseases.
- Women who have more non-marital sex partners are more likely to be single mothers. Women who have had five non-marital sex partners during their lives are seven times more likely to become single mothers than are women who have engaged in sex only with their husbands.
- Women who have more non-marital sexual partners are more likely to have abortions. Women who have had five non-marital sexual partners are four times more likely to have abortions than are women who have engaged in sex only with their husbands.
- Finally, the greater the increase in the number of non-marital sex partners, the lower the probability of personal happiness. Some 56 percent of women who have had sex only with men they have married report that they are currently "very happy." By contrast, only 37 percent of women with five non-marital sex partners report that they are "very happy."

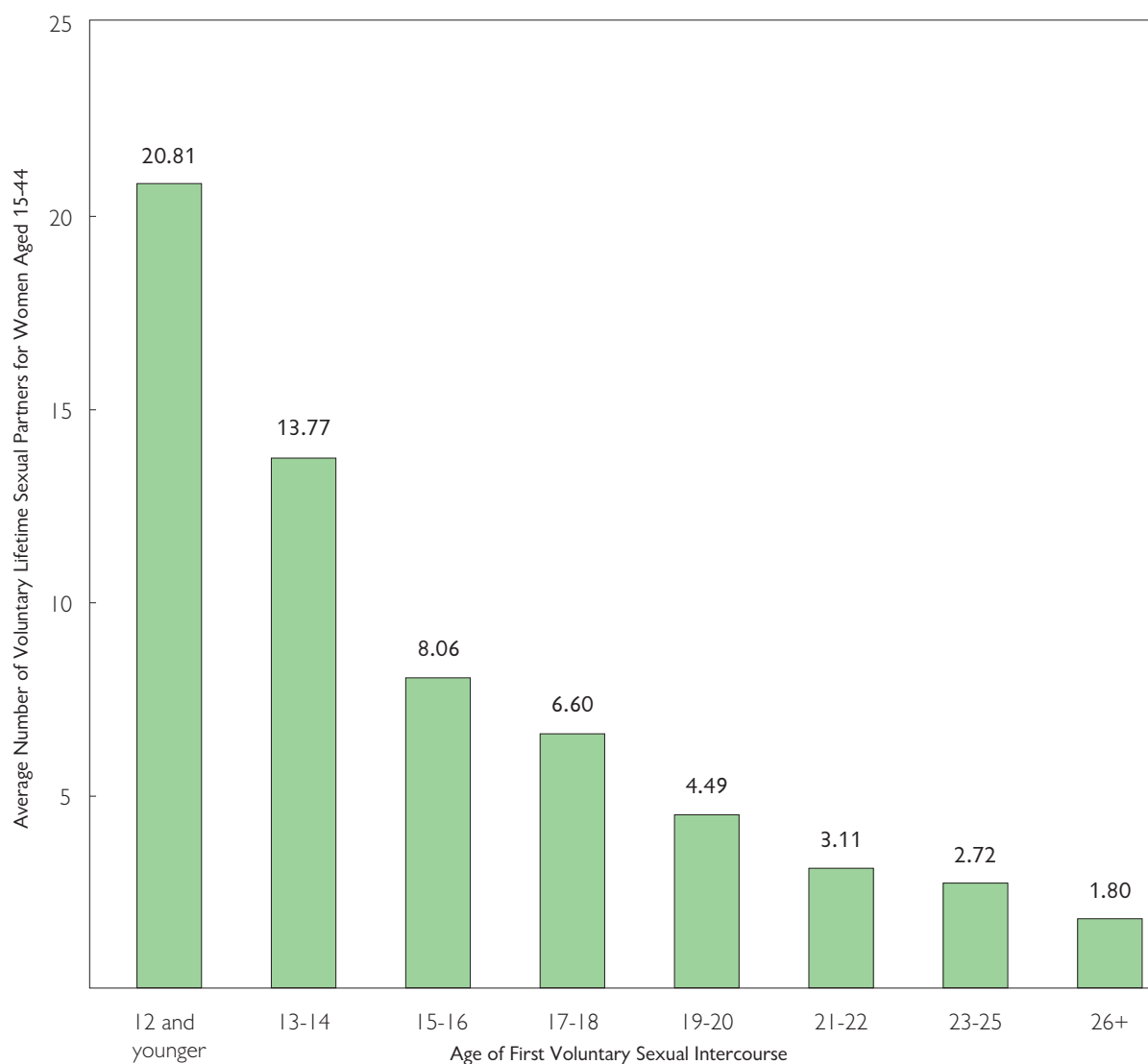
The following charts are divided into three sections:

- Charts 1 and 2 deal with the age of initiation of sexual experience and the number and turnover of sexual partners.
- Charts 3 through 11 report on the social outcomes of women in the NSFG by the age of first voluntary sexual intercourse.

- Charts 12 through 18 report on the linkages between social outcomes and the number of life-time, non-marital sexual partners.

—Robert E. Rector is Senior Research Fellow, Kirk A. Johnson, Ph.D., is Harry and Jeanette Weinberg Fellow in Statistical Welfare Research in the Center for Data Analysis, Lauren R. Noyes is Director of Research Projects in Domestic Policy, and Shannan Martin is a Research Assistant in Domestic Policy at The Heritage Foundation.

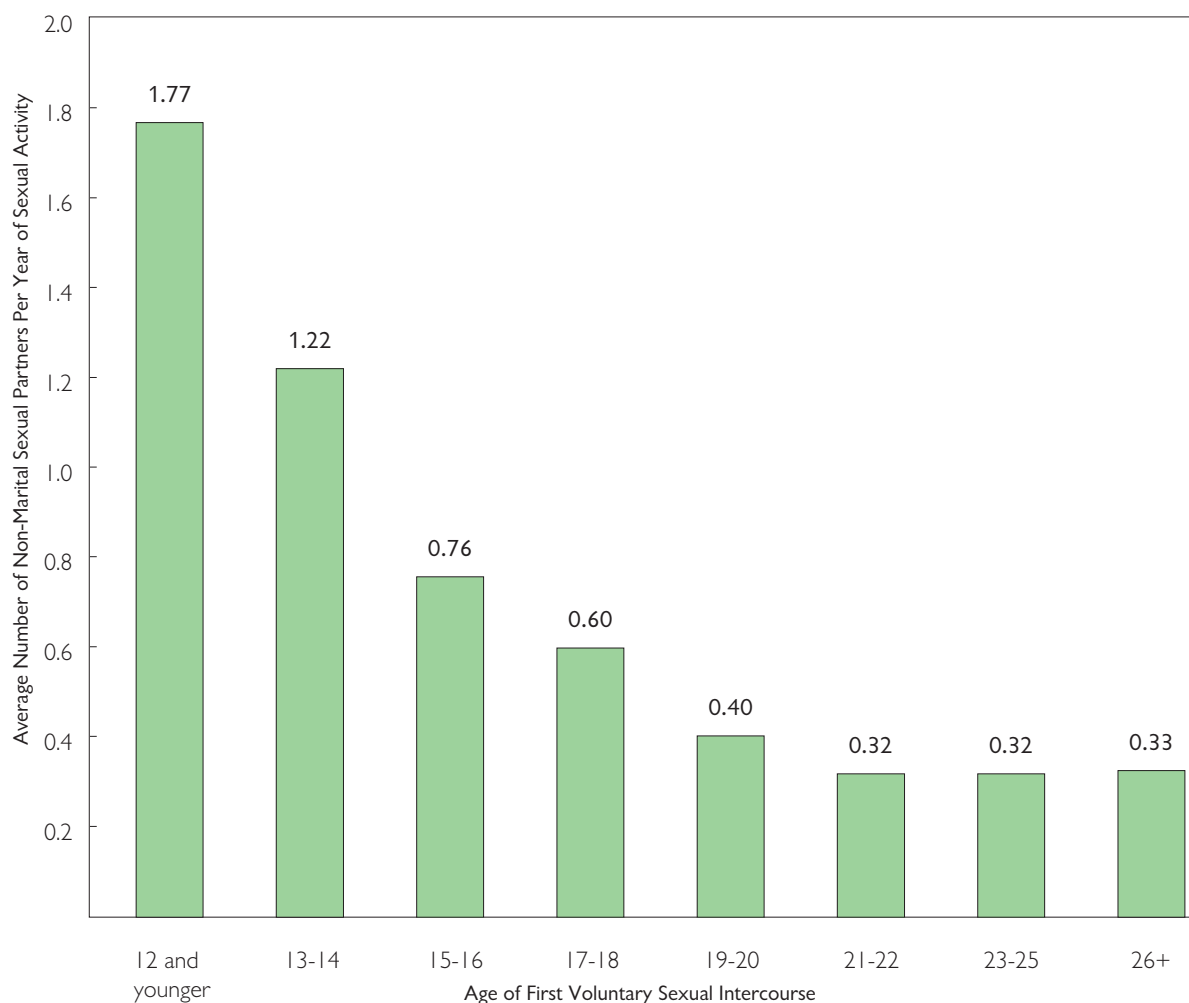
Delay of Sexual Initiation Reduces Number of Voluntary Lifetime Sexual Partners



Initiation of sexual activity at a younger age is linked to high numbers of sexual partners. The earlier a woman begins sexual activity, the more sexual partners she will have during her lifetime. Girls who begin voluntary sexual activity at age 13-14 will have, on average, more than 13 voluntary sexual partners during their lives. By contrast, women who begin sexual activity at age 23-24 will have, on average, 2.7 sexual partners during their lives.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

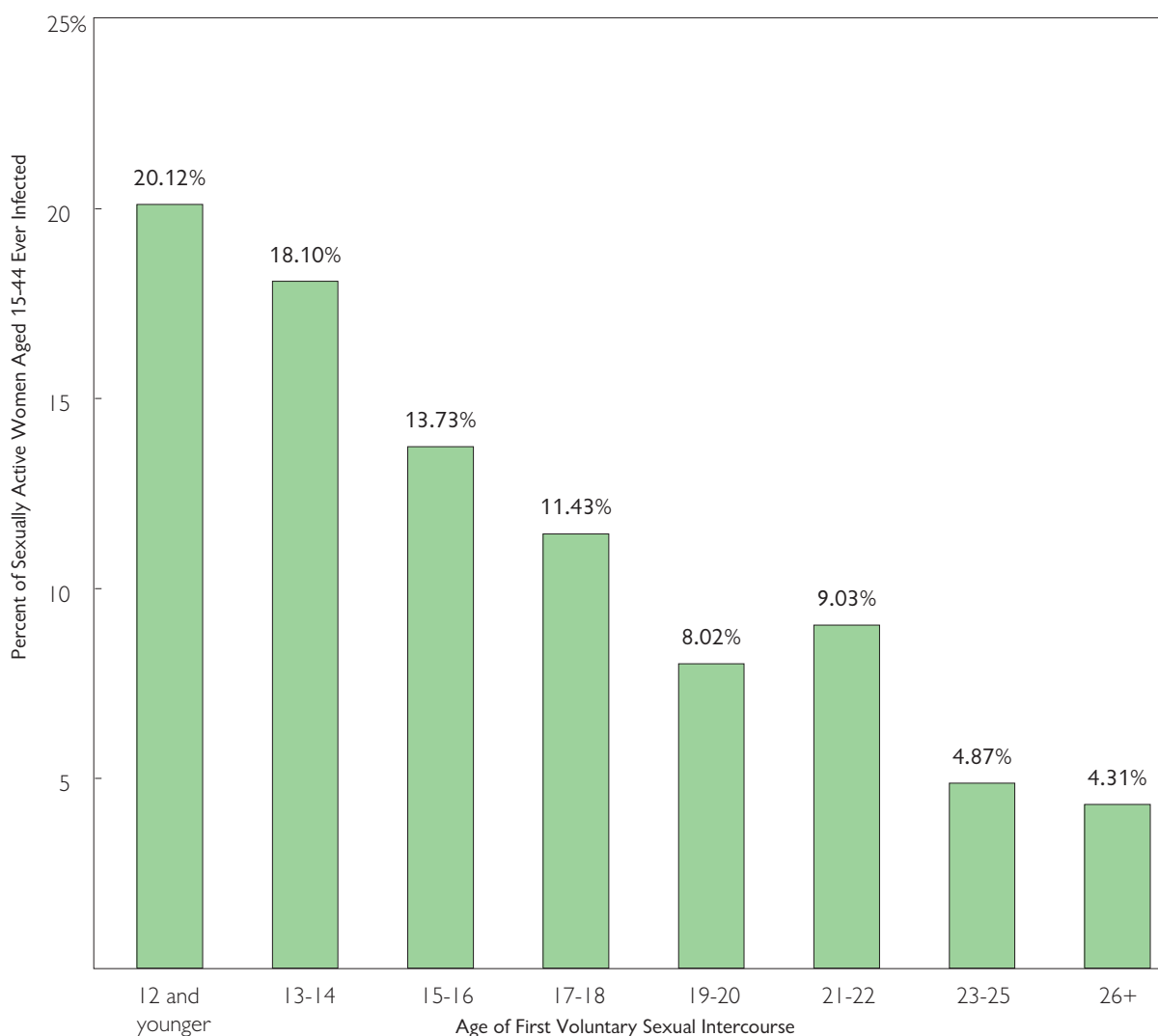
Earlier Onset of Sexual Activity Is Linked to Higher Turnover Rates Among Sexual Partners



One reason that girls who begin sexual activity in teen years may have more sexual partners during their lifetimes is that they have been sexually active for more years than women who initiated sex activity at older ages. However, women who begin sexual activity at early ages also have far higher turnover rates among sexual partners. (The sex partner turnover rate may be defined as the number of voluntary sexual partners per year of sexual activity.) Girls who begin sexual activity at age 13 or 14 have, on average, 1.2 partners per year of sex activity. By contrast, women who begin sex activity at ages 21-22 have 0.3 sex partners per year of sexual activity. Thus, women who become sexually active at ages 13-14 have a partner turnover rate four times higher than those who initiate sex activity in their early twenties.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

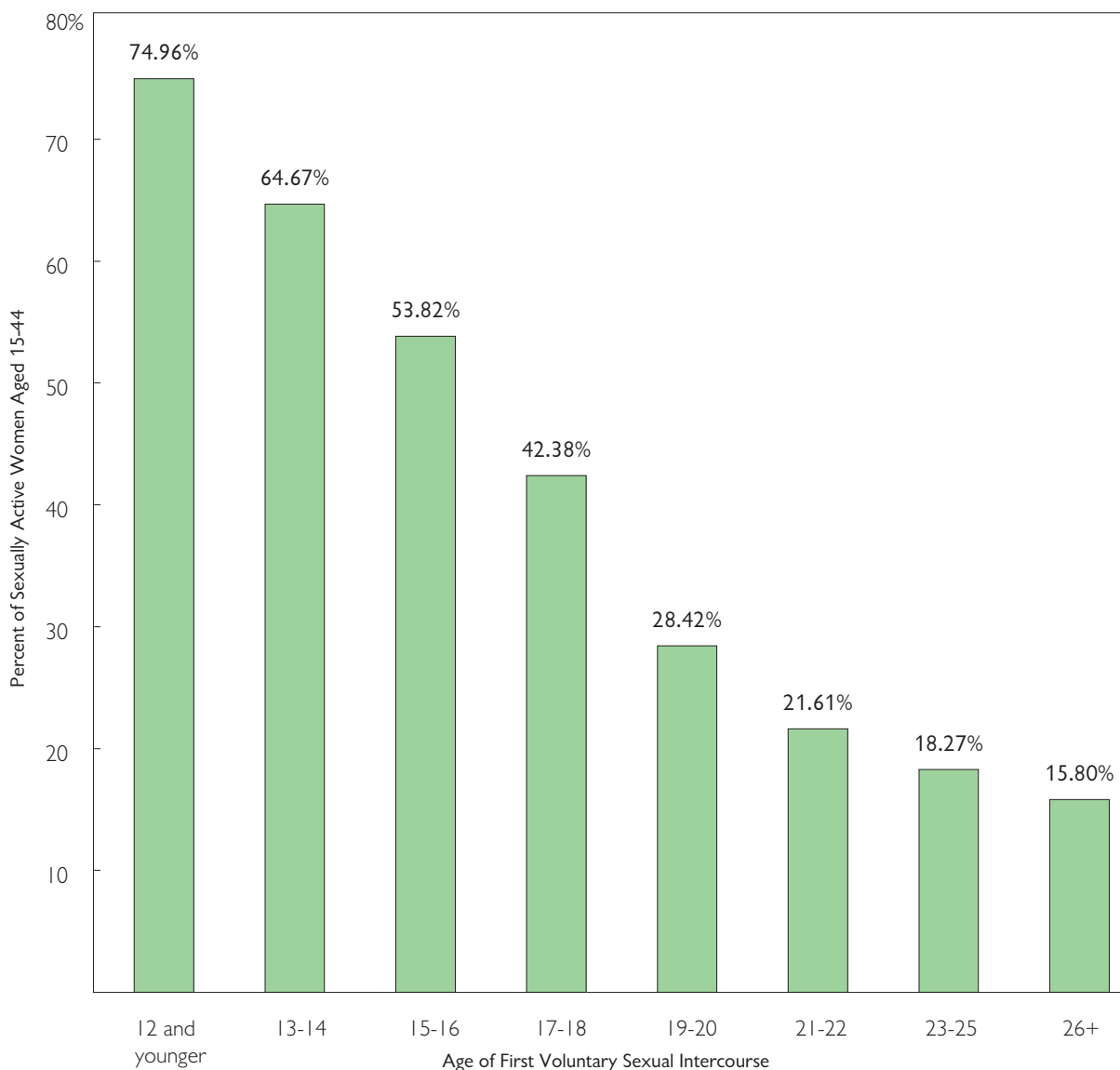
Delay in Sexual Activity Cuts the Odds of Contracting Sexually Transmitted Diseases



Beginning sexual activity at a young age greatly increases the probability of becoming infected with sexually transmitted diseases (STDs). Girls who began sexual activity at age 13 are twice as likely to become infected by an STD when compared to girls who started sexual activity at age 21. Some 18 percent of girls who began sexual activity at age 13-14 have contracted syphilis, gonorrhea, chlamydia, genital warts or genital herpes, or self-report a high likelihood of HIV. By contrast, around 8 percent of women who begin sexual activity at age 21 have been infected by these diseases.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

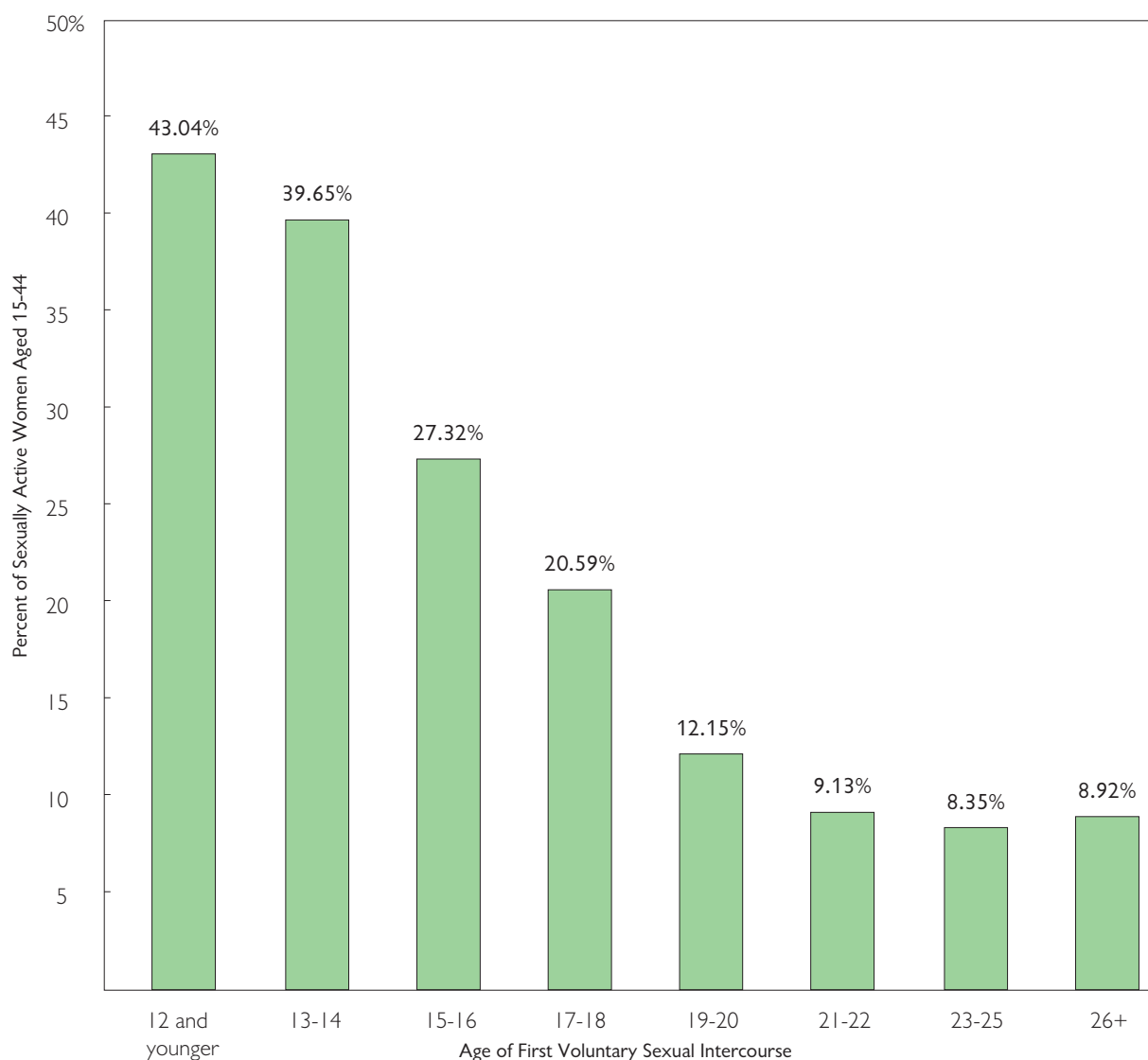
Beginning Sexual Activity at an Older Age Reduces the Probability of Out-of-Wedlock Pregnancy



Women who begin sexual activity at an early age are far more likely to experience an out-of-wedlock pregnancy. Over half of girls who begin sexual activity at ages 15 or 16 will become pregnant out of wedlock. By contrast, some 22 percent of women who begin sexual activity at ages 21 or 22 become pregnant out of wedlock.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

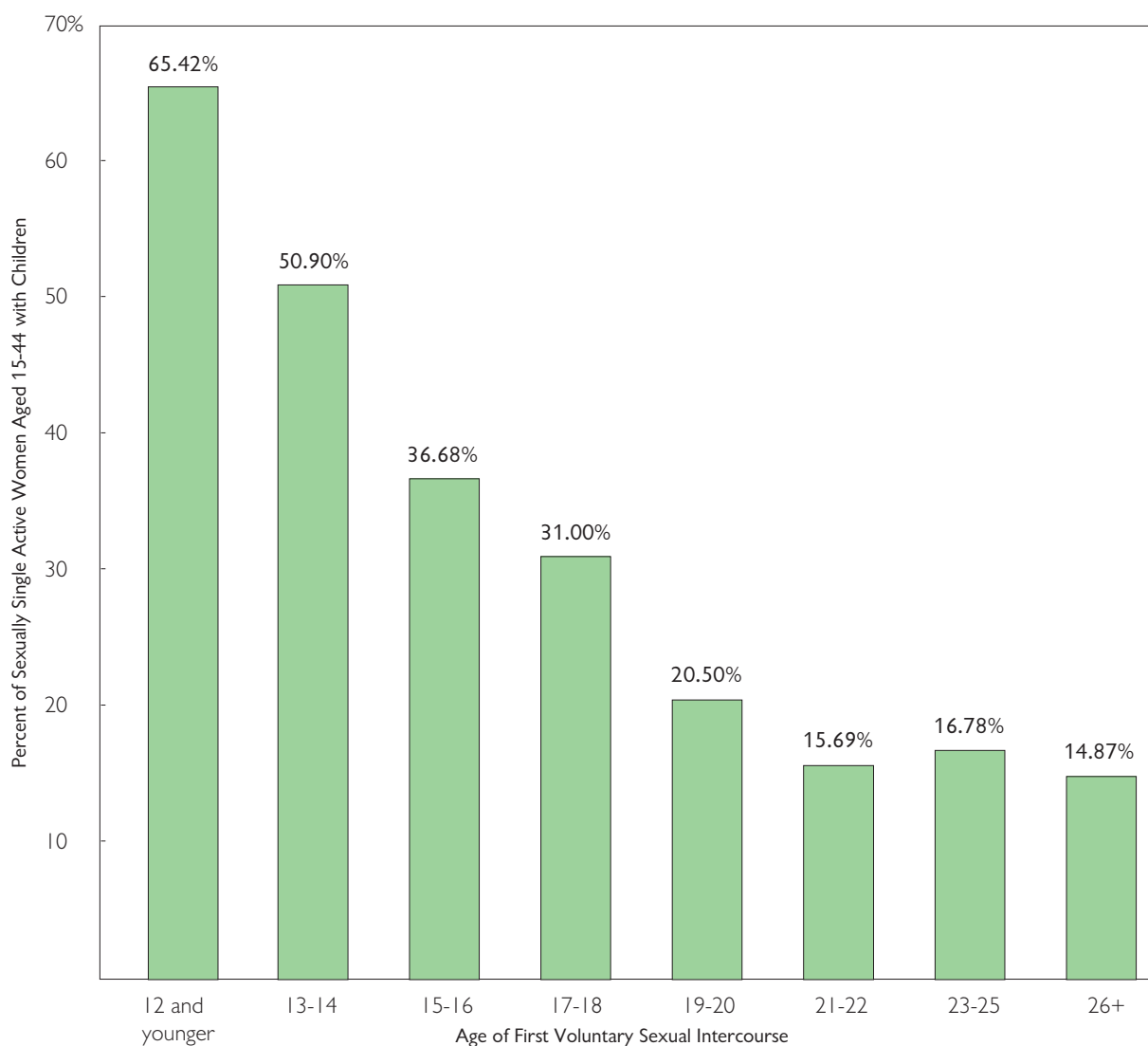
Delay in Sexual Activity Reduces the Odds of Out-of-Wedlock Childbearing



Women who begin sexual activity at an early age are far more likely to give birth out of wedlock. Nearly 40 percent of girls who commence sexual activity at ages 13-14 will give birth outside marriage. By contrast, 9 percent of women who begin sexual activity at ages 21-22 will give birth outside marriage.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

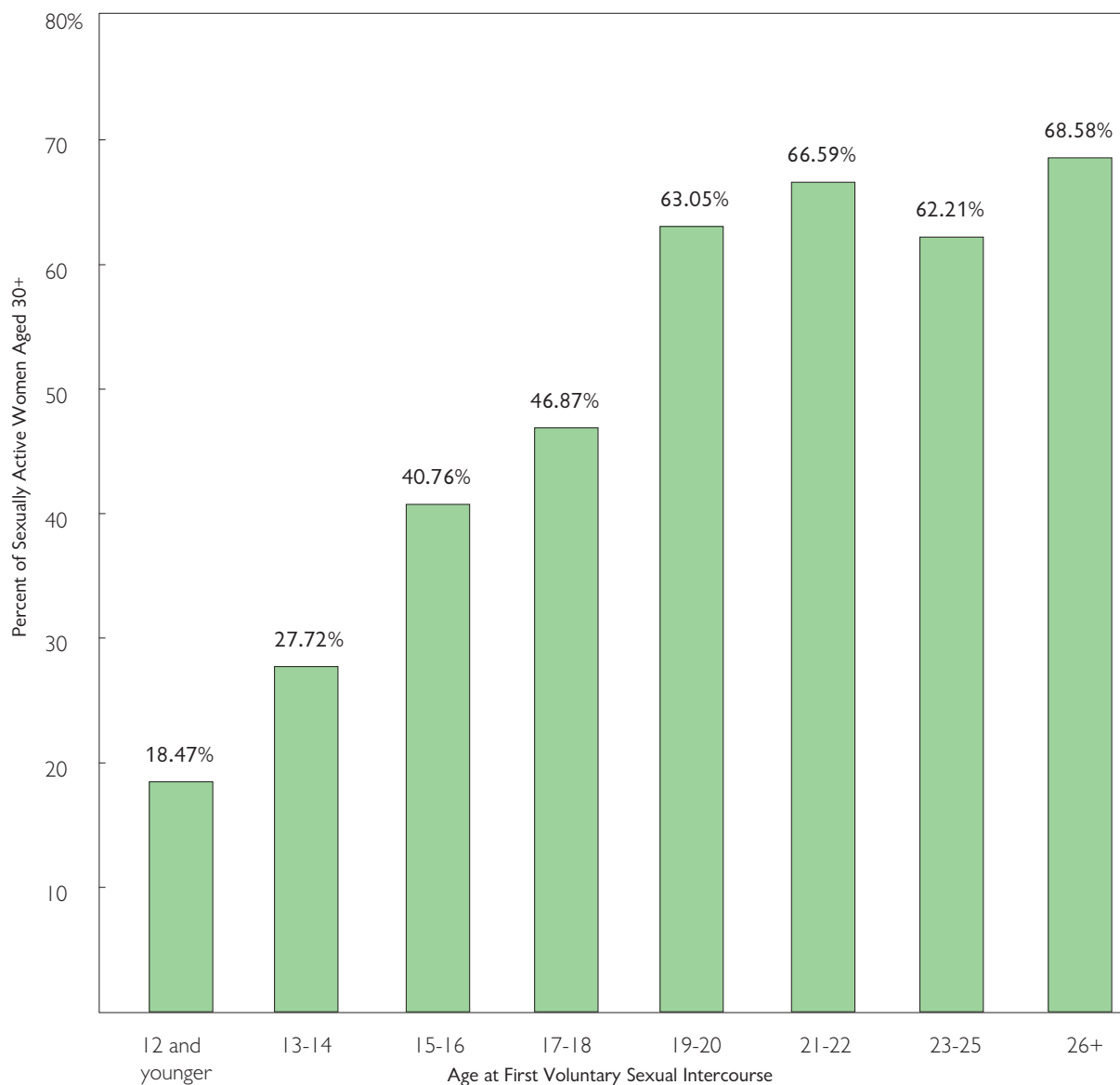
Delay in Sexual Activity Reduces the Odds of Becoming a Single Mother



This chart covers mothers with children. Women who begin sexual activity at earlier ages are more likely to become single mothers. More than half the mothers with children who became sexually active at ages 13-14 were single parents at the time of the survey. By contrast, only 15.7 percent of mothers with children who commenced sex activity at ages 21-22 were single parents at the time of the survey. Single motherhood includes currently single mothers who are separated, divorced, or widowed, or have never been married.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

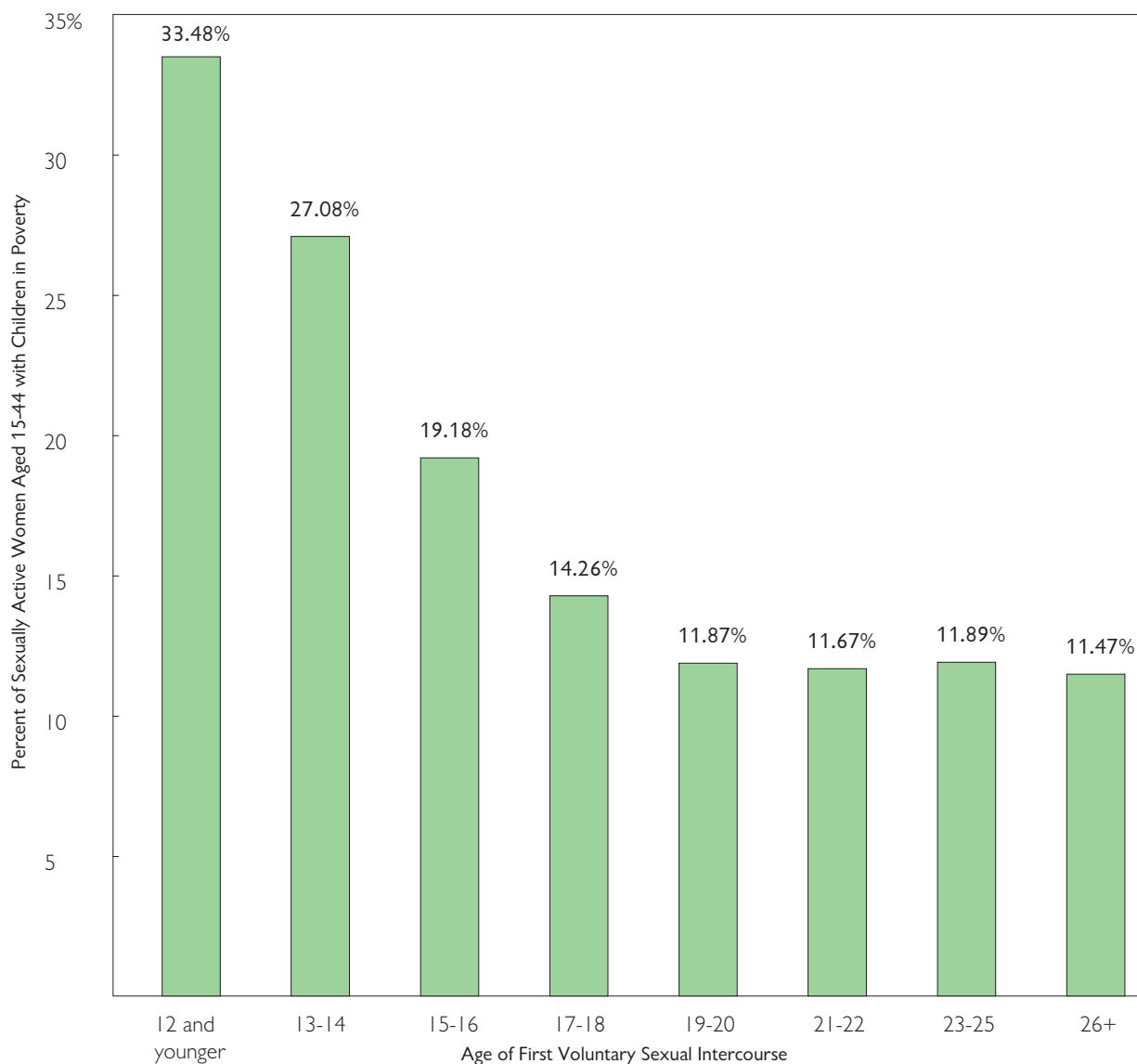
Delay in Sexual Activity Leads to Greater Marital Stability



This chart measures the percentage of sexually active women over age 30 who were in stable marriages. A woman was defined as being in a stable marriage if she was married at the time of the survey and had been in that same marriage for more than five years. Girls who began sexual activity in their teens clearly have greater difficulty in forming and sustaining stable marriages. Two thirds of women who began sexual activity at ages 21-22 were in stable marriages. By contrast, only 27.7 percent of girls who began sexual activity at age 13-14 were in stable marriages.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

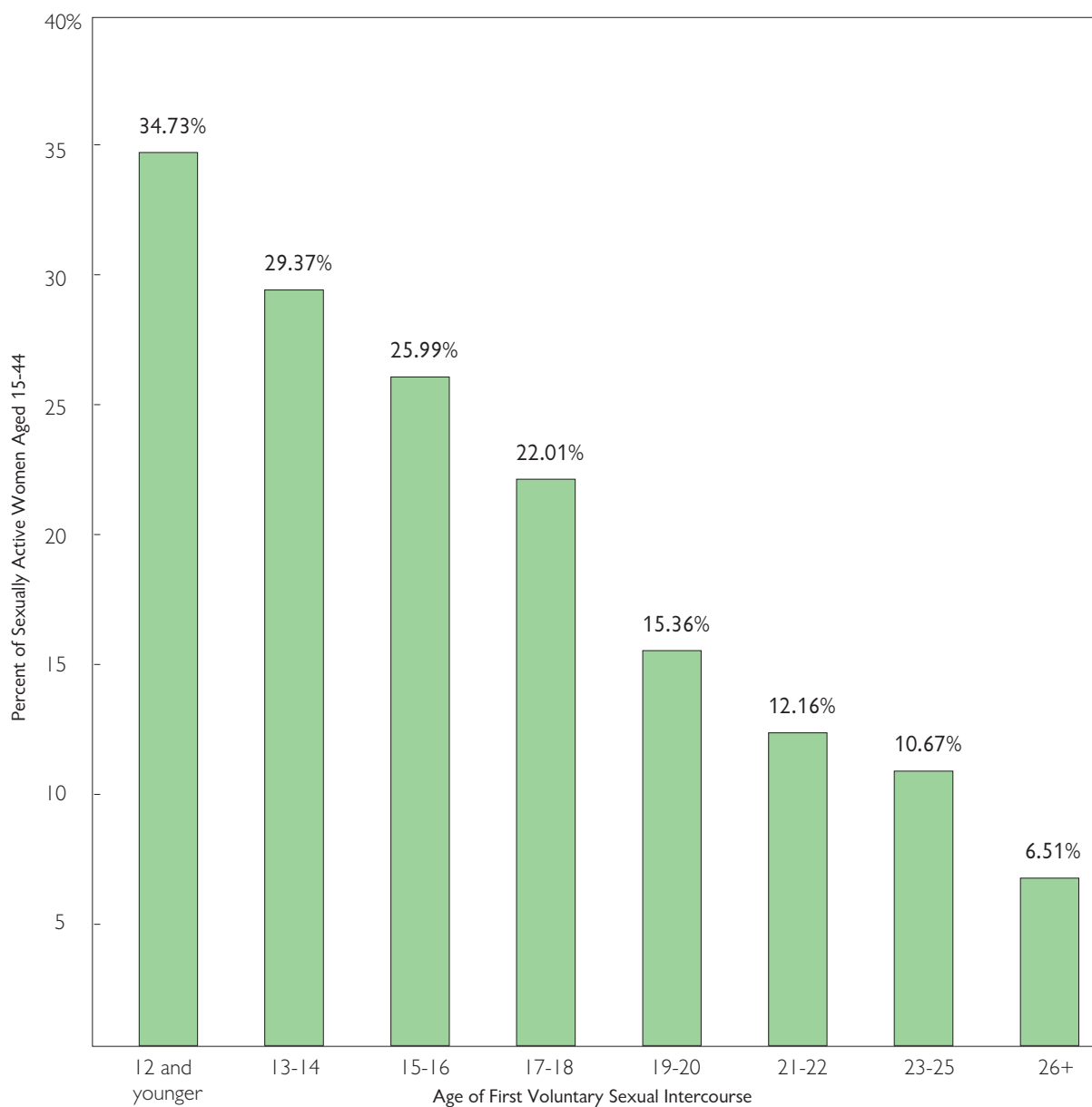
Delay in Sexual Activity Is Linked to Lower Levels of Child and Maternal Poverty



This chart shows the poverty rate of mothers with children at the time of the survey. Early sexual activity is linked to higher levels of child and maternal poverty. Some 27 percent of mothers who began sexual activity at ages 13 or 14 were living in poverty at the time of the survey. By contrast, 11.7 percent of mothers who began sexual activity at ages 21 or 22 were poor at the time of the survey.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

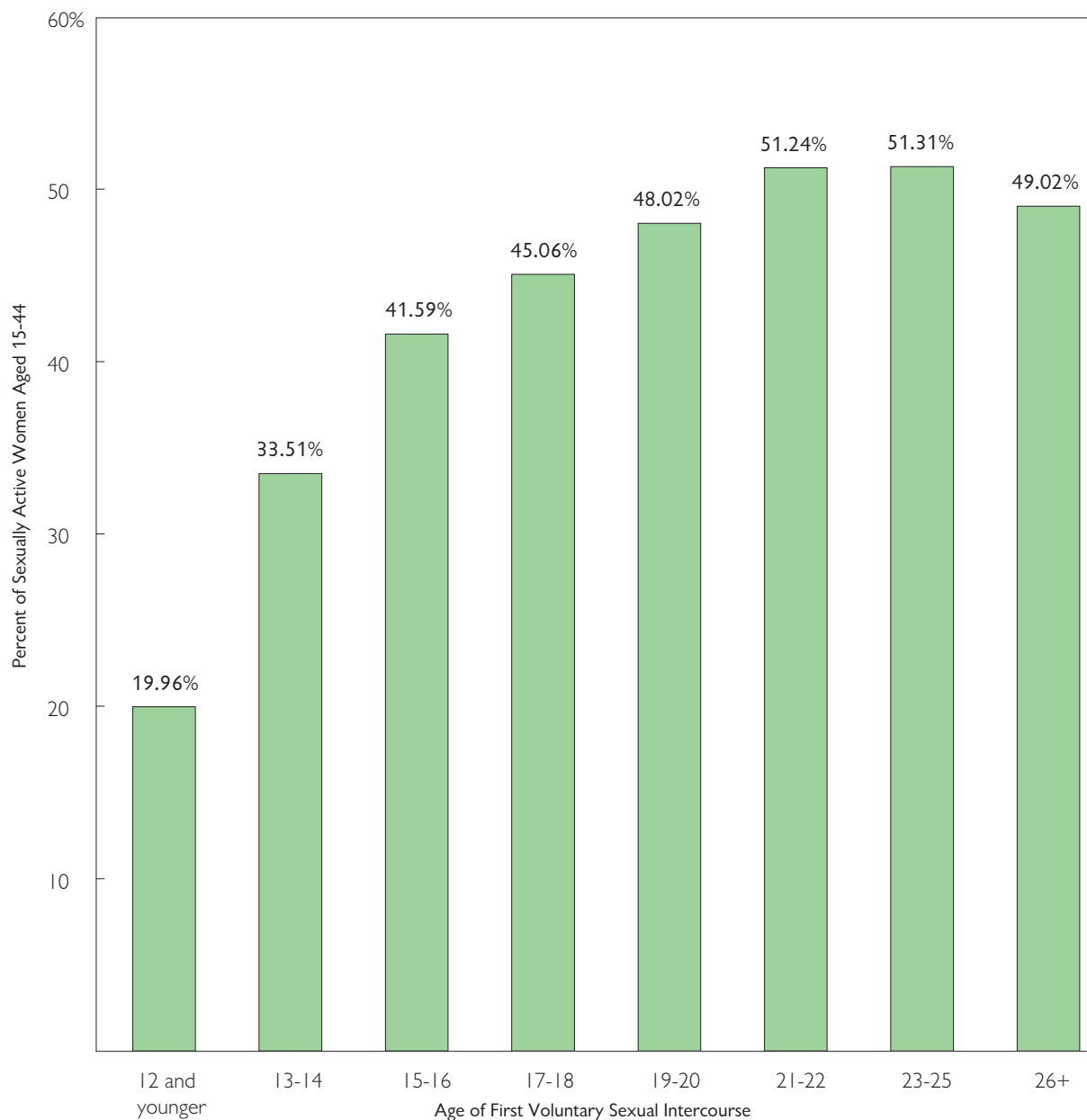
Beginning Sexual Activity at an Older Age Reduces the Probability of Abortion



Girls who begin sexual activity at an earlier age are far more likely to have abortions. Nearly 30 percent of girls who started sexual activity at ages 13 or 14 have had an abortion. By contrast, some 12 percent of girls who began sexual activity at 21 or 22 have had an abortion.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

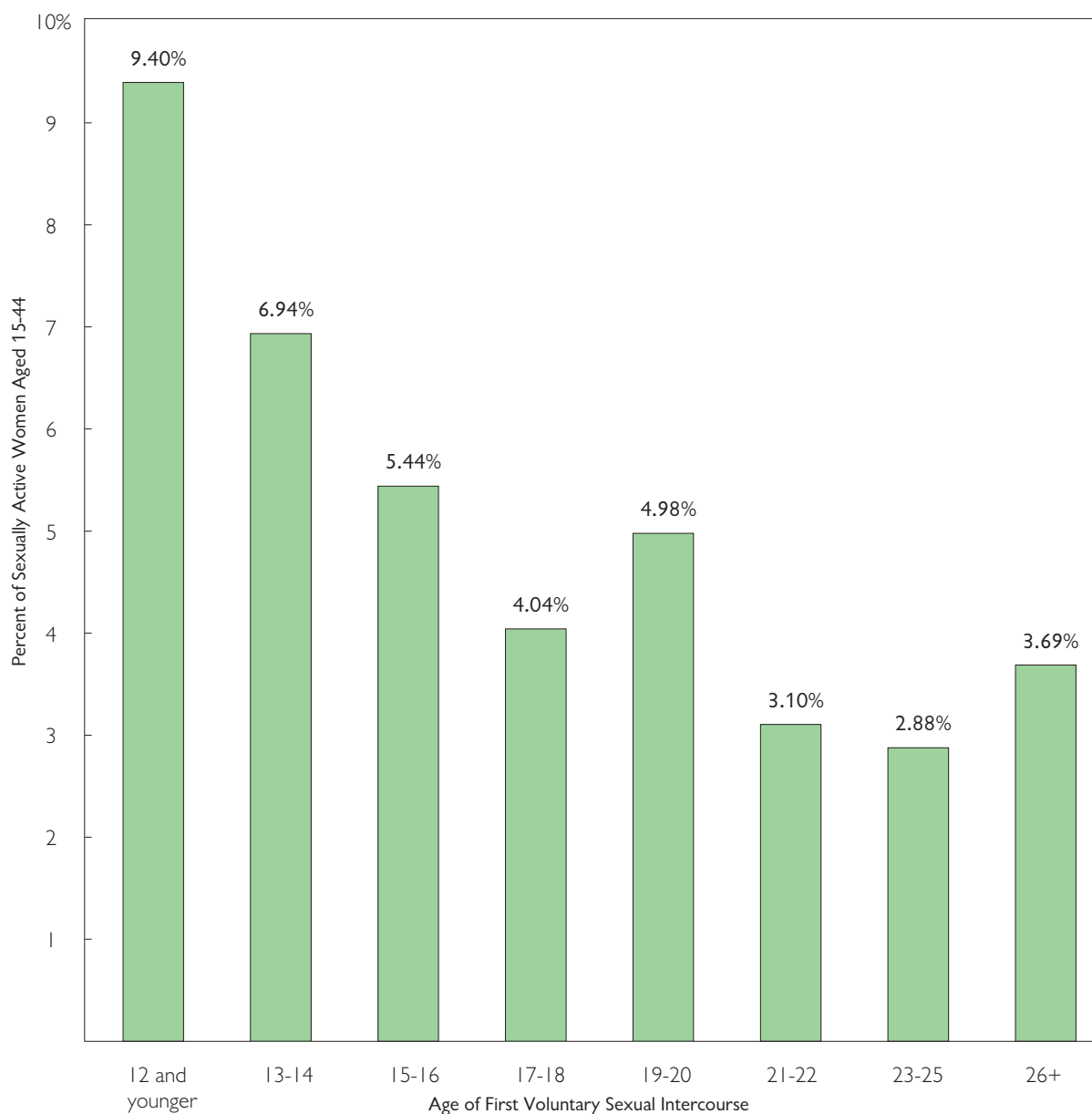
Delay in Sexual Activity Is Linked to Greater Happiness



Beginning sexual activity at an older age is linked to higher levels of personal happiness. More than half the women who began sexual activity at ages 21 or 22 report they are currently “very happy” in life. By contrast, only a third of women who began sexual activity at ages 13 or 14 report they are currently “very happy.”

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

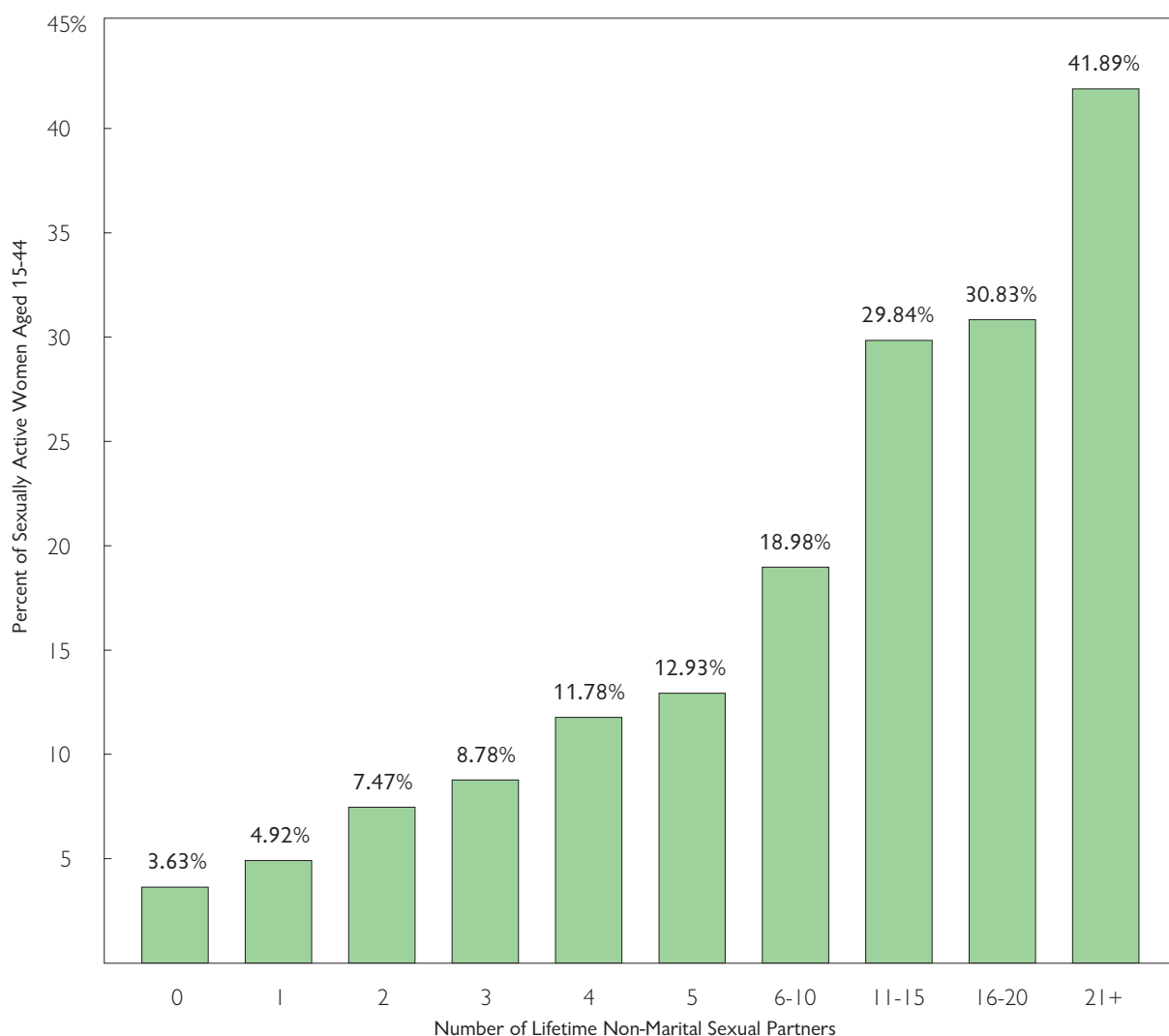
Beginning Sexual Activity at an Older Age Reduces Depression



Women who began sexual activity at an early age are more likely to feel unhappy or depressed. Around 7 percent of women that started sexual activity at ages 13 or 14 report that they currently feel “not very happy” or “very unhappy.” By contrast, women who began sex activity later are less likely to report feelings of depression. Around 3 percent of women who began sex activity at ages 21 or 22 state that they currently feel “not very happy” or “very unhappy.”

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

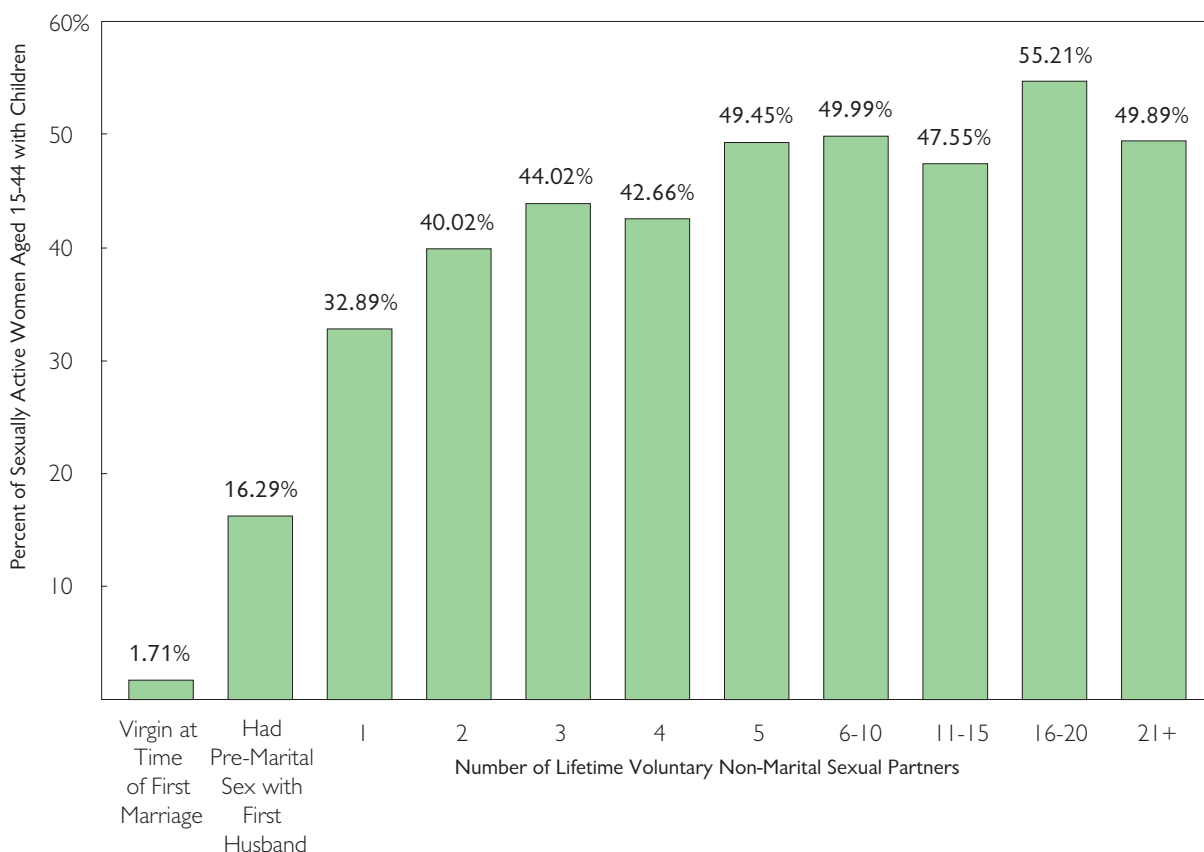
Women Who Have More Non-Marital Sexual Partners Are More Likely to Be Infected with Sexually Transmitted Diseases



This chart shows the impact of increases in the number of lifetime sexual partners on the chances of being infected by a sexually transmitted disease (STD). The chart covers all sexually active women; women with zero non-marital partners have had sex only with men whom they married. Some 3.6 percent of sexually active women who have had zero non-marital sex partners have contracted syphilis, gonorrhea, chlamydia, genital warts, or genital herpes, or have a self-reported high risk of HIV. By contrast, the STD infection rate of women with 11 to 15 non-marital sexual partners is nearly ten times higher. Some 30 percent of these women have been infected.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

Women Who Have More Voluntary Non-Marital Sexual Partners Are More Likely to Give Birth Out of Wedlock



This chart shows the relationship between the number of non-marital sexual partners and giving birth to a child out of wedlock. All the women represented in the chart are or have been sexually active.

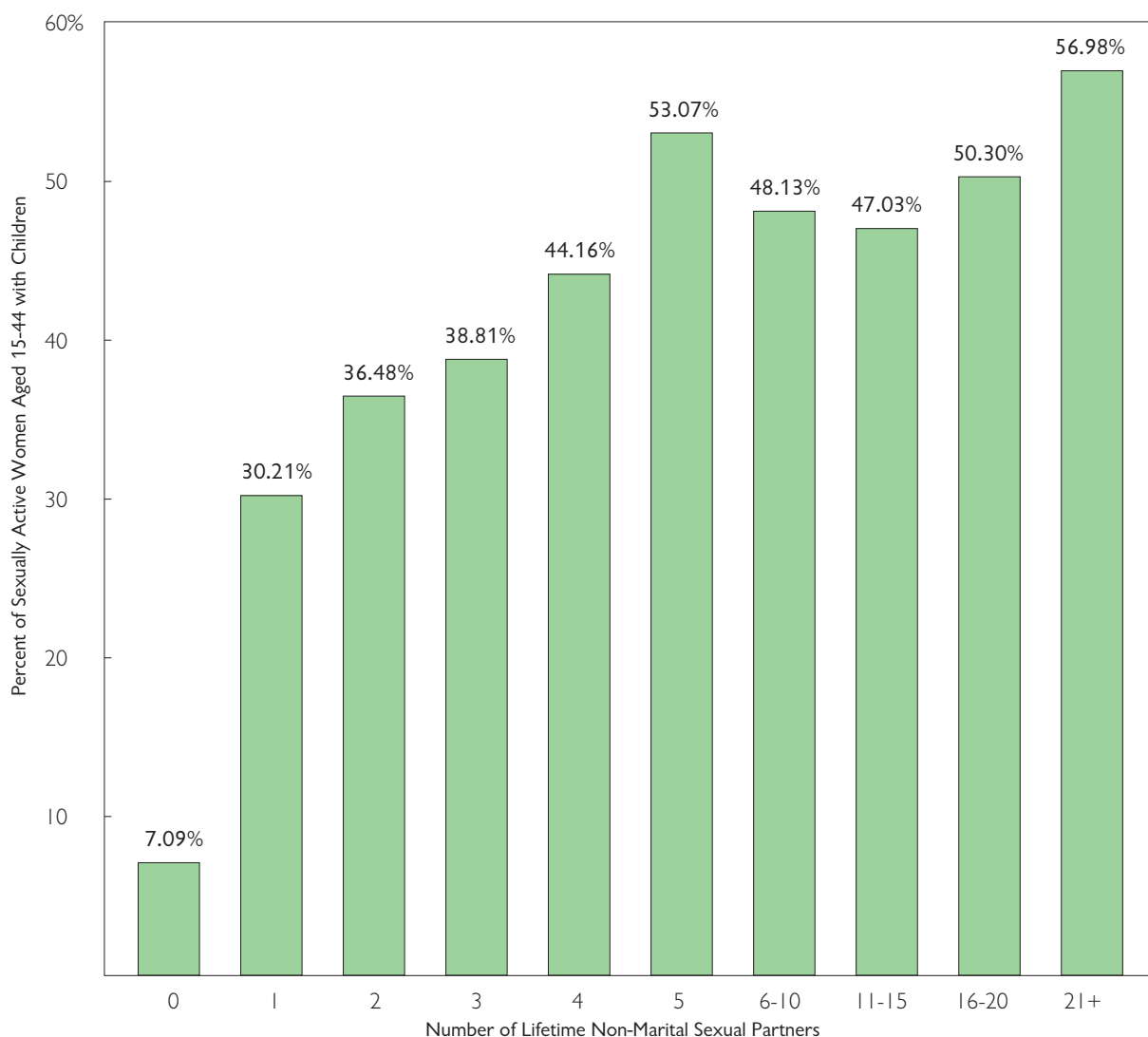
The women in the far left-hand column were virgins at the time of first marriage and have been married to all the men with whom they have had voluntary intercourse. Some 1.7 percent of these women have had an out-of-wedlock birth. (The small number of women in this category who had children out of wedlock typically became pregnant while married but divorced before the child was born. See appendix.)

The adjacent column represents women whose first intercourse was pre-marital; i.e., they were sexually active with a man they later married. If these women later divorced, they married any other men with whom they subsequently had been sexually active. Some 16 percent of these women gave birth out of wedlock before marrying the father of their child.

The other columns represent women who have had one or more non-marital sexual partners. As the number of lifetime non-marital sexual partners rises, so does the probability of having a child out of wedlock. Nearly half of the women with five non-marital sexual partners have had an out-of-wedlock birth.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

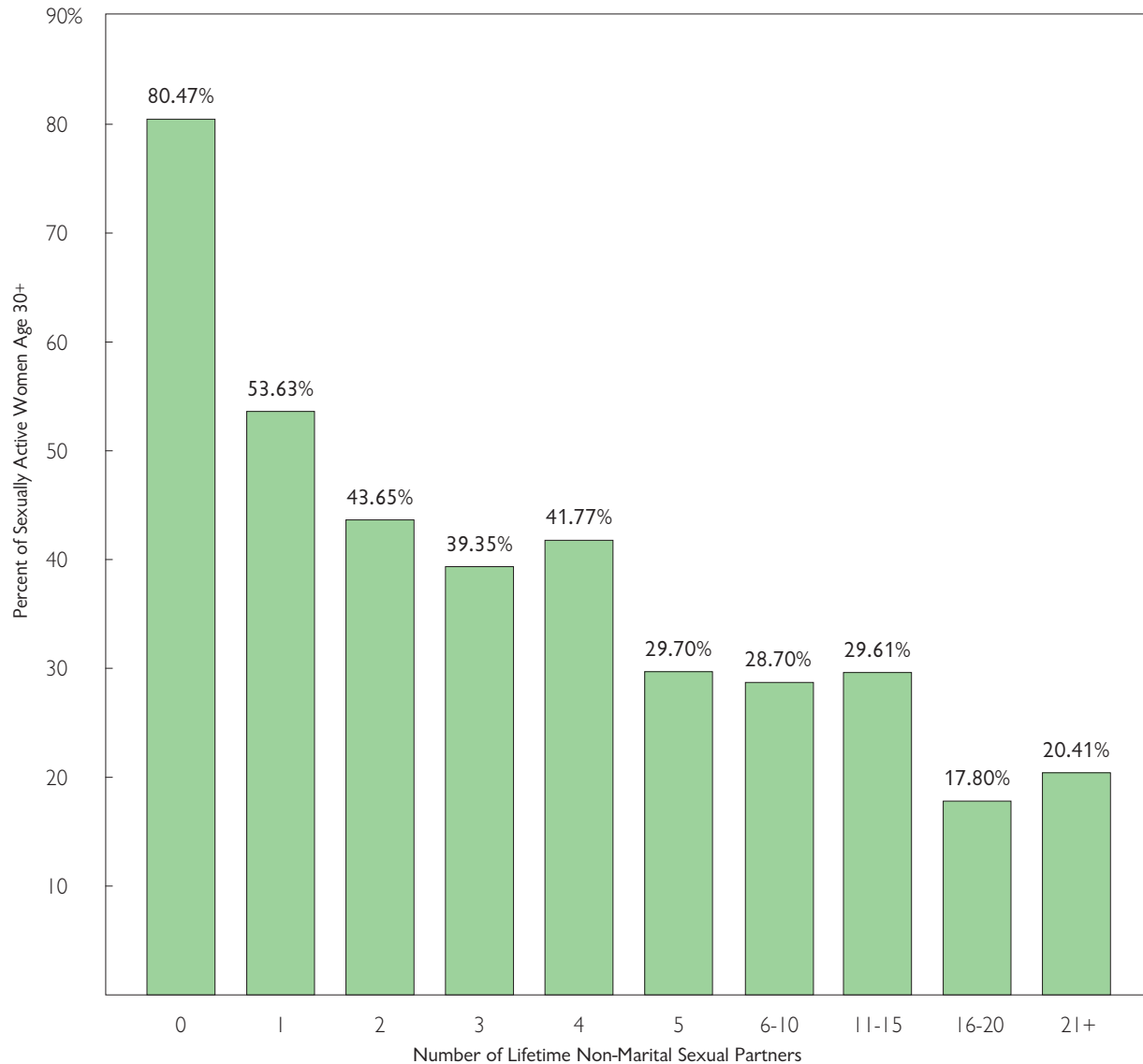
Women Who Have More Non-Marital Sexual Partners Are More Likely to Become Single Mothers



This chart shows the relationship between the number of non-marital sexual partners and single parenthood. All the women represented on the chart are mothers with children. The left-hand column represents women who have sex only with men they have married. Some 7 percent of these mothers were single parents at the time of the survey; 93 percent were married. The probability of being a single mother rises as the number of lifetime non-marital sex partners rises. Some 53 percent of mothers with five lifetime non-marital sex partners were single parents at the time of the survey.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

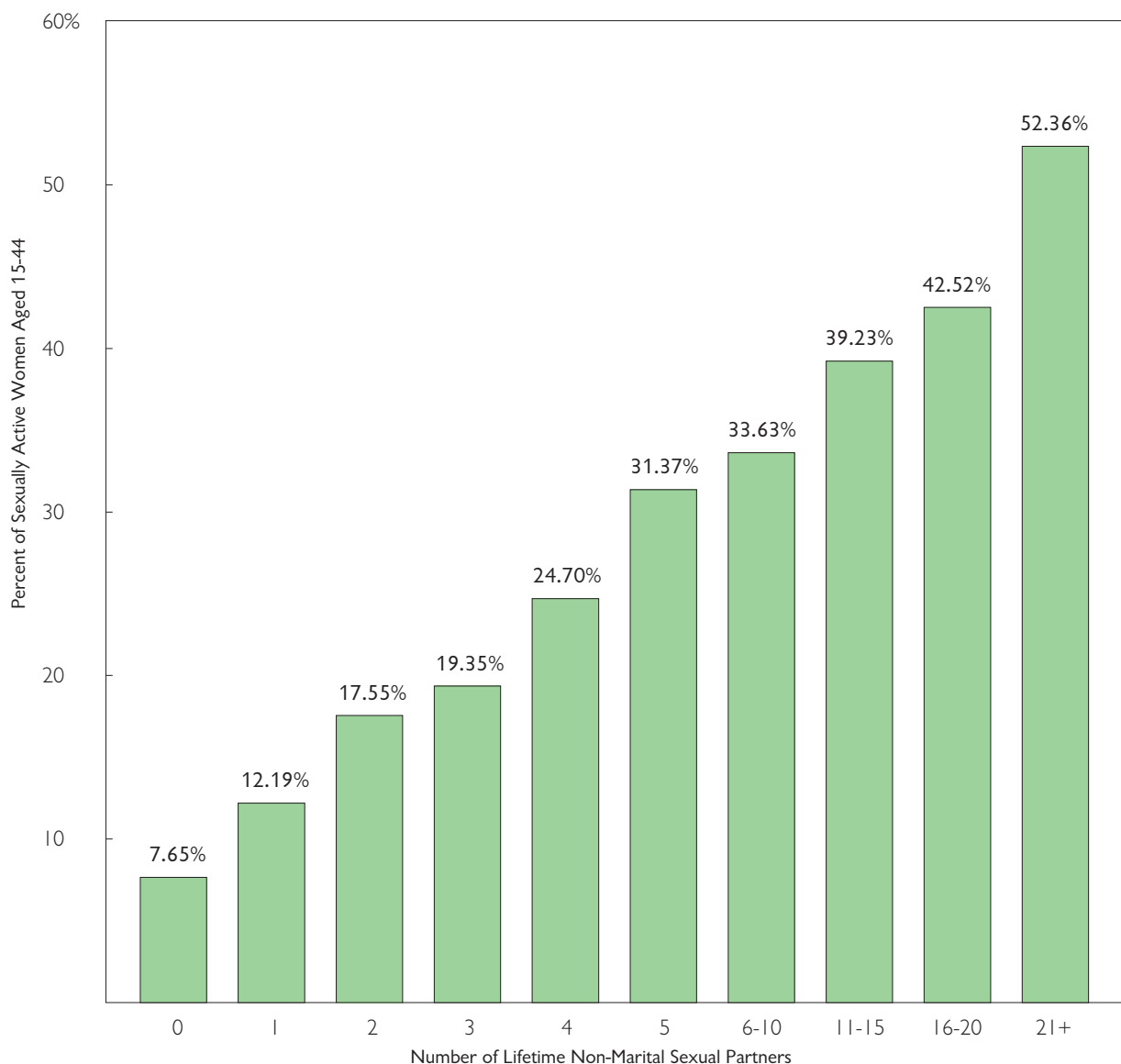
Women Who Have More Non-Marital Sexual Partners Are Less Likely to Have Stable Marriages



This chart covers sexually active women over the age of 30. Women were defined as having a stable marriage if they were currently married and had been in that same marriage for at least five years. Women who had more non-marital sex partners were less likely to have stable marriages. Over 80 percent of the women who had never had a non-marital partner were in stable marriages. By contrast, only 30 percent of the women with five non-marital sex partners were in stable marriages.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

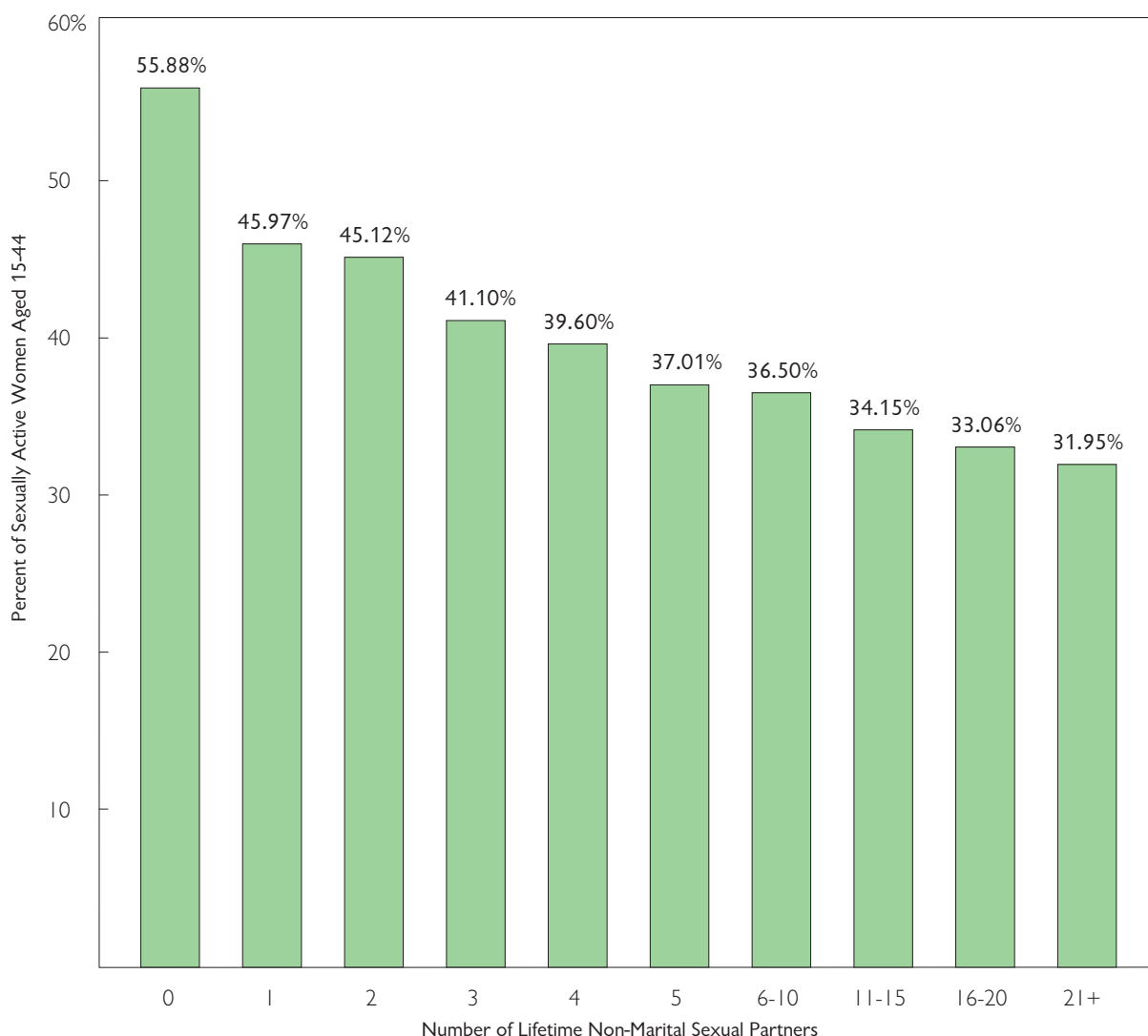
Women Who Have More Non-Marital Sexual Partners Are More Likely to Have Abortions



This chart shows the relationship between the number of lifetime non-marital sex partners and abortion. The greater the number of non-marital sex partners a woman has, the greater the probability she will have an abortion. Some 7.6 percent of sexually active women with zero non-marital partners have had an abortion. By contrast, over half the women with more than 20 non-marital sex partners have had an abortion.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

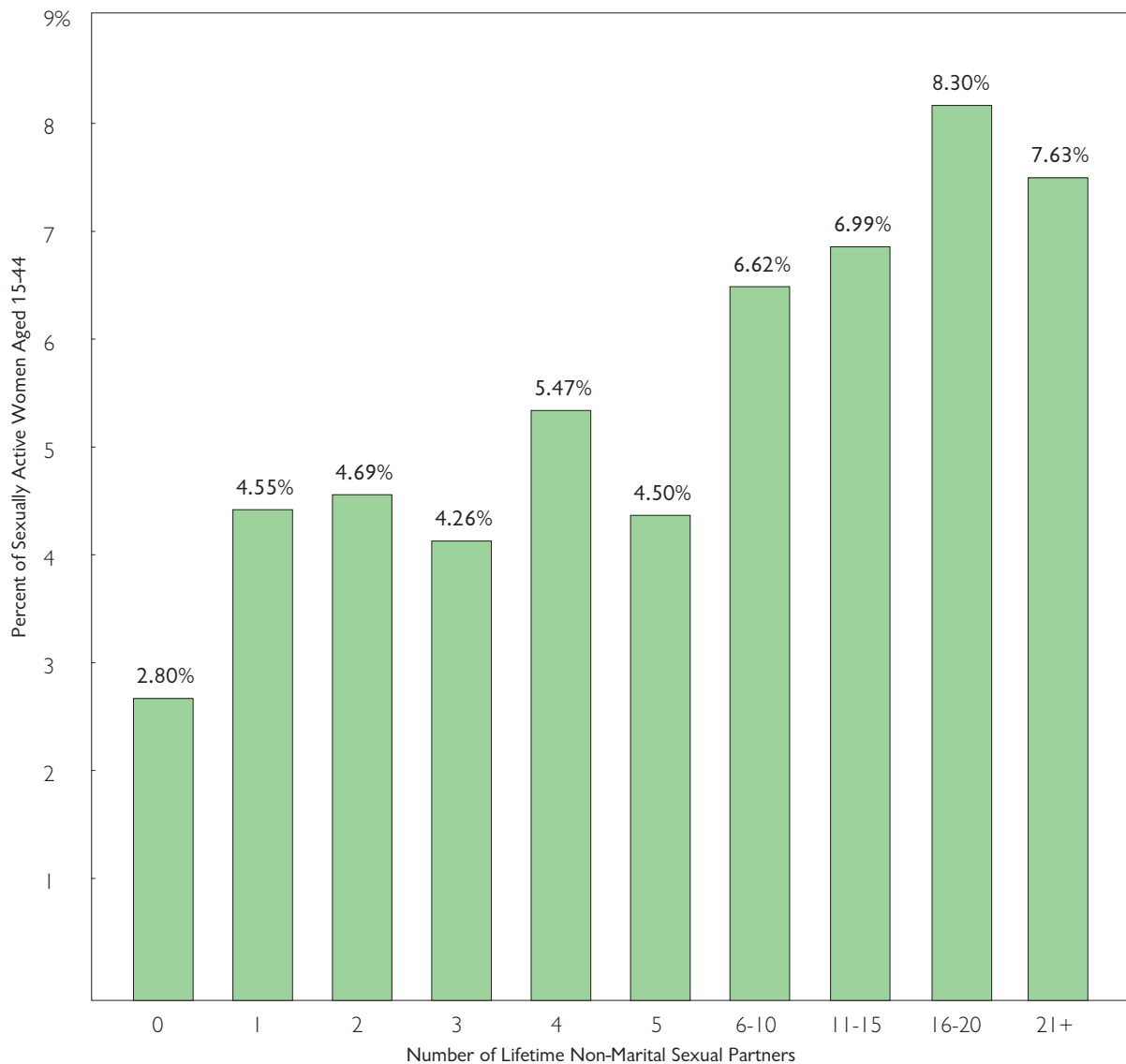
Women Who Have More Non-Marital Sexual Partners Are Less Likely to Be Happy



This chart shows the inverse relationship between personal happiness and the number of lifetime non-marital sexual partners. The greater the number the non-marital sex partners, the lower the probability of personal happiness. The chart covers all sexually active women. Some 56 percent of women who have had sex only with men they married report they are currently “very happy.” As the number of non-marital sex partners increases, the probability that a woman will report she feels “very happy” shrinks. Only 37 percent of women with five non-marital sex partners report they are very happy.

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

Women Who Have More Non-Marital Sexual Partners Are More Likely to Be Depressed



This chart shows the relationship between the number of lifetime non-marital sexual partners and depression. The greater the number of non-marital sex partners, the higher the probability of depression. Only 2.8 percent of women who have had sex only with men they married report they currently feel “not very happy” or “very unhappy.” By contrast, 8.3 percent of women with 16 to 20 non-marital sex partners report they currently feel “not very happy” or “very unhappy.”

Source: CDC, National Center for Health Statistics, National Survey of Family Growth, 1995.

APPENDIX

This study of the effects of early sexual activity is based on data from the National Survey of Family Growth (NSFG), which is sponsored and funded by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services. The NSFG is a survey of a nationally representative sample of roughly 10,000 women between the ages of 15 and 44, conducted in 1995. The charts in this report were generated from the microdata file of NSFG data available from the National Center for Health Statistics. Further data definitions and other information about the analysis are available from the authors at The Heritage Foundation.

The NSFG is uniquely suited to this kind of analysis, as it is one of the few databases in America that inquires into the health and relationship history of a representative cross-section of American women. It does not, however, ask questions of men; as a result, this analysis is limited only to women.

All the charts and data in this report refer to sexually active women; girls and women who have never been sexually active are excluded. Charts 12 through 18 report on the numbers of lifetime voluntary non-marital sexual partners. Women who are shown as having zero voluntary non-marital sexual partners have been married to all the men with whom they have had sexual intercourse; some of these women may have had pre-marital intercourse with men they later married, but at some point they have married all the men with whom they have been voluntarily sexually active.

Chart 13 further subdivides the group of women with zero non-marital partners into those who were married at the time of first intercourse and those who had pre-marital sex with men they later married.

The NSFG has information on the number of lifetime sexual partners, the total number of marriages and divorces, and whether or not the woman has been sexually assaulted. Charts 13 through 18 measure the number voluntary non-marital sexual partners during the woman's life. A voluntary non-marital sexual partner is any man with whom the woman has had voluntary intercourse but whom she has never married. This measure was constructed by taking the total number of lifetime sexual partners, subtracting the number of marriages, and then subtracting one if the woman had ever been sexually assaulted.¹ Women who have one or more non-marital sexual partners may also have a number of marital sexual partners.

The percentage and other estimates in the charts were subjected to a rigorous “jackknife” analysis to gauge the statistical significance of the differences of the extreme values. All of the charts presented have differences that are statistically significant at the 95 percent confidence level. That is, in all cases, the percent reported on the left side of any given chart is statistically different from the percent reported on the right side of the chart.

1. The NSFG fails to ask how many different men assaulted or raped the respondent in her lifetime. If we know that at least one man assaulted the woman, we subtract one from the number of lifetime partners. Although this may overstate the true number of voluntary non-marital sexual partners in some cases where more than one man assaulted the woman, it cannot be further corrected.

In the case of Charts 11 and 18 on depression, we can claim statistical significance only at a 90 percent level because of the increased variation within the depression data; however, this is still a scientifically acceptable level of significance.

The variables presented on the X and Y axes of each chart are thus related to each other. As a second statistical check, a bivariate correlation was calculated for the two variables displayed in each chart. With two exceptions, the bivariate correlation for each chart was found to be statistically significant at a confidence level of at least 95 percent. The two exceptions were Charts 11 and 18, where the bivariate correlations were found to be significant at the 90 percent confidence level.

TECHNICAL NOTES FOR SPECIFIC CHARTS

- Chart 1.** The average number of voluntary sexual partners is reported in this chart, as opposed to the number of voluntary non-marital sexual partners, which is reported in the other charts dealing with the number of sex partners.
- Chart 2.** The sexual turnover rate is defined as the number of voluntary sexual partners a woman has had per year of sexual activity (or, rather, per year since her first voluntary sexual experience). Thus, if a woman lost her virginity at the age of 20 and had sex with three men over the following two years (until she was interviewed by the NSFG), the turnover ratio would be 1.5. To put it a different way, she had sex with an average of one-and-a-half men per year between the time she became sexually active and the time of interview.
- Chart 3.** The NSFG collects information on the age of first voluntary sexual intercourse. These data are shown in Charts 1 through 11. For Chart 3, average rates of STD infection are presented for the different age of sexual initiation categories. The definition of sexually transmitted diseases in the NSFG includes six major infections: Syphilis, Gonorrhea, Chlamydia, Genital Warts, Genital Herpes, and HIV. The survey asks women whether they have ever been infected with any of the first five. For HIV, women are asked to rate the chance that they have HIV. If they describe a high likelihood of having HIV, then they are coded as having an STD.
- Chart 5.** This chart reports out-of-wedlock childbearing rates for all sexually active women.
- Chart 6.** This chart analyzes women who have had at least one child. Rates of single motherhood are determined at the time of interview and include mothers who have never been married, as well as those who have been married but are currently separated, divorced, or widowed.
- Chart 7.** As opposed to most of the other charts, this chart applies only to sexually active women who are 30 or older. Marital stability is defined as a woman who is currently married and has been able to sustain that marriage for at least five years. The rate is determined by taking the number of women who were in a stable marriage and dividing that figure by all sexually active women over age 30. However, the analysis for this chart excluded women over 30 who are currently married but have been in that marriage for less than five years, because we cannot determine whether or not the marriage will continue for at least five years.
- Chart 8.** The NSFG reports current family poverty rates. Since early sex is associated with single motherhood and single motherhood leads to higher rates of poverty for the mother and her child, early sex is indirectly associated with higher poverty rates.
- Charts 9 and 10.** Happiness and depression are related to early sexual experience. Happiness is defined as reporting feeling “very happy” at the time of interview. “Depression” does not measure clinical depression in the medical sense, but rather feeling “not very happy” or “very unhappy” at the time of interview.
- Chart 12.** See Chart 3, technical note on the definition of STDs.
- Chart 13.** There were a small number of anomalous records in the “Virgins at Time of First Marriage” category. Some women with no reported non-marital partners stated that their first voluntary sexual experience was on or after the date of their first marriage, but they bore

children long after their marriage was ended by separation or divorce. There are a few plausible explanations for this:

1. The woman respondent had intercourse that led to a birth with the previous (or future) husband.
2. The woman respondent had intercourse that led to a birth with a non-marital partner, but she did not report the additional man in the sexual partner roster.
3. The pregnancy that led to the birth was conceived through nonsexual means (i.e., in vitro fertilization).

The following protocol was established to eliminate those anomalous records from the analysis for Chart 13.

1. If the birth took place within nine months of the month of divorce or subsequent marriage, the father was presumed to be the previous or future husband and the observation was kept in the analysis.
2. If the birth took place outside of the nine-month threshold, the observation was deemed anomalous and was removed from the analysis.

This procedure eliminated only about 15 total observations. If these had remained in the analysis, the percent of births out of wedlock to women who were virgins at first marriage and reported no non-marital partners would have risen to about 3 percent.

Chart 14. This chart looks only at women who have at least one child. See Chart 6 for a description of the single motherhood definition.

Chart 15. See Chart 7 for a description of the marital stability definition.

Charts 17 and 18. See Chart 9 for a description of how happiness and depression were defined.