# **RESEARCH AND PRACTICE**

# Trends in US Women's Use of Sexual and Reproductive Health Care Services, 1995– 2002

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I examined the 1995 and 2002 National Survey of Family Growth for patterns and trends in the use of sexual and reproductive health care services by US women according to type of provider. The percentage of women reporting receipt of contraceptive services rose between 1995 and 2002 (from 36% to 41%), and the level and mix of services received varied considerably according to type of provider. Women visiting publicly funded providers received a broader mix of services than did clients of private providers. (Am J Public Health. 2008;98:1814–1817. doi:10.2105/ AJPH. 2007.124719)

US women rely on a mix of public and private providers for sexual and reproductive health care services, including publicly funded family planning clinics<sup>1</sup> and private-practice obstetrician-gynecologists or family practice doctors.<sup>2</sup> Previous analyses found that the range and type of sexual and reproductive health care services (including contraceptive care, routine gynecological care, pregnancyrelated care, and sexually transmitted disease [STD] care) received by women visiting publicly funded clinics differed from the range and type received by women visiting private doctors.<sup>3</sup> Since the mid-1990s, a number of changes have occurred (e.g., in contraceptive methods<sup>4</sup> and in the availability and financing of public and private insurance coverage of contraceptive care<sup>5,6</sup>) that could affect the delivery and use of these services in the United States. An updated review of the use of these services since the mid-1990s was

therefore needed. I examined nationally representative survey data<sup>7,8</sup> for patterns and trends in the use of sexual and reproductive health care services by type of provider for women aged 15 through 44 years between 1995 and 2002.

## **METHODS**

I analyzed data from the National Survey of Family Growth (NSFG), cycles 5 (1995)<sup>9</sup> and 6 (2002).<sup>8</sup> These surveys are nationally representative, in-home, cross-sectional surveys that collected retrospective data from women aged 15 through 44 years. In 1995, the sample size was 10847 respondents, and the response rate was 79%; in 2002, the sample size was 7643 respondents, and the response rate was 80%. The NSFG data are weighted to account for different sampling and nonresponse rates and to be representative of the total population of women aged 15 through 44 years in the United States as enumerated by the US Census Bureau (60.0 million in 1995 and 61.6 million in 2002).

In both 1995 and 2002, respondents were asked whether or not they had received 13 specific sexual and reproductive health care services from a doctor or other medical care provider in the previous 12 months (the first 5 of which are contraceptive services): receipt of birth control method or prescription; birth control checkup; birth control counseling; sterilization counseling; sterilization procedure; Papanicolaou test; pelvic examination; pregnancy test; abortion; prenatal care; postpartum care; STD testing, treatment, or counseling; and HIV testing. In 1995, the STD question did not include counseling. In 2002, women were also asked about receipt of 2 additional contraceptive services: emergency contraception counseling and emergency contraception pills or prescription. However, only 22 respondents (0.3%; 160000 weighted estimate) reported receiving 1 of the emergency contraception services but no other contraceptive service.

Women were asked a series of questions about provider type and payment method for each service received. The 4 categories of source of care used in my analysis were private doctor (within this category are some women fewer than 10%—who reported receiving care from a health maintenance organization), Title X–funded clinic, public clinic not funded by Title X, and hospital or other provider. (Title X is the only federal program devoted specifically to funding family planning care for low-income Americans.)

My analysis of provider type varied slightly from other published results because of a number of problems with the original provider variables in the public-use NSFG data file. Details of these problems and the specifics of my adjustments have been described previously.<sup>10</sup> I constructed a summary variable for source of care that assigned women a "primary" provider type if they had visited more than 1 type of provider during the 12-month period (7% of women receiving any contraceptive service, and 15% of women receiving any sexual or reproductive health care service reported visiting more than 1 type of provider). I assigned a primary provider type to these women on the basis of the provider type for the service highest in the following hierarchy: any contraceptive service; Papanicolaou test or pelvic examination with no contraceptive service; and pregnancy care, STD, or HIV services alone. Within this hierarchy, if a woman received more than 1 service from different provider types, I used an order of provider types (Title X-funded clinic; public clinic not funded by Title X; private doctor or health maintenance organization; and hospital or other provider) to assign women to a primary provider type.

All analyses were run with SPSS 13.0 (SPSS Inc, Chicago, IL) and the SPSS complex sample module to account for the complex sample design (a multistage area probability sample design drawn from 120 areas across the country) of the NSFG. In comparing proportions between 1995 and 2002, I used the CSTABULATE procedure to estimate corrected standard errors and confidence intervals (at different levels of significance) for each proportion. I calculated the *t* test and significance for the differences between proportions.

## RESULTS

Almost three quarters (73.8%) of the 7643 respondents, representing an estimated 45.4 million US women, reported receiving at least 1 sexual or reproductive health care service in the 12 months before the 2002 NSFG

interview (Table 1). This proportion is not statistically different from the 72.1% of women who reported receiving similar services in 1995. However, the proportion of women reporting receipt of 1 or more contraceptive services from a medical provider did rise significantly, from 35.7% in 1995 to 41.4% in 2002, representing a 19% increase in the number of women receiving contraceptive services (from 21.4 million to 25.5 million women in the weighted population estimates). Over the same period, the total number of women aged 15 through 44 years rose only 3%, and the number of these women who were sexually active increased only 1% between surveys. The increase in use of contraceptive services occurred primarily among adolescents, women older than 30 years, and women in families earning more than 150% of the federal poverty level.

Although the overall proportion of women receiving any sexual or reproductive health care service remained constant, there were significant increases in the proportions of women reporting receipt of some specific services: counseling about birth control (from 14.5% in 1995 to 18.6% in 2002), receipt of birth control method or prescription (from 27.5% to 33.9%), pregnancy test (from 16.0% to 19.7%), and STD testing or treatment (from 7.6% to 12.6%; the 2002 STD question also asked about counseling). The proportion of women reporting receipt of prenatal care declined (from 9.5% to 7.4%).

In 2002, 76.0% of respondents reporting receipt of any sexual or reproductive health care service received their care primarily from a private doctor; about 1 in 4 received their care primarily from a publicly funded clinic (20.1%) or hospital or other provider (3.9%; Table 2). For contraceptive services, 71.8% visited a private provider, 24.8% went to a publicly funded clinic, and 3.4% went to a hospital or other provider. For routine gynecological care (Papanicolaou test or pelvic examination), 8 in 10 women (80.9%) visited a private doctor and 16.8% visited a publicly funded clinic.

Of respondents reporting receipt of any sexual or reproductive health care service in 2002, 57% reported receipt of 1 or more contraceptive services, although the percentage varied considerably when broken down by provider type (Table 2). Among women whose TABLE 1—Women's Receipt of Sexual or Reproductive Health Care Services in the Past 12 Months, by Age, Poverty Level, and Service Received: National Survey of Family Growth, 1995 and 2002

	1995	2002
Weighted population estimate of women aged 15-44 y	59 958 000	61 561 000
Received any sexual or reproductive health care service, %	72.1	73.8
Received any contraceptive service, <sup>a</sup> %	35.7	41.4***
Age, y, %		
15-19	31.5	39.3*
20-24	59.7	62.7
25-29	52.1	55.2
30-34	38.5	47.0**
35-39	22.7	30.4**
40-44	13.8	19.4*
Family income as a percentage of the federal poverty level, %		
< 150%	36.7	38.9
≥150%	35.4	42.5***
Service received, %		
Birth control counseling	14.5	18.6**
Birth control checkup	22.3	23.6
Birth control method or prescription	27.5	33.9**
Sterilization counseling	3.4	4.4
Sterilization procedure	1.9	1.9
Emergency contraception counseling <sup>b</sup>	NA	3.2
Emergency contraception pills or prescription <sup>b</sup>	NA	0.9
Papanicolaou test	62.0	64.4
Pelvic examination	61.4	59.7
Pregnancy test	16.0	19.7**
Abortion	0.9	1.0
Prenatal care	9.5	7.4*
Postpartum care	5.9	6.2
STD testing, treatment, or counseling $^{\rm c}$	7.6	12.6**
HIV testing	17.3	16.8

*Note*. STD = sexually transmitted disease.

<sup>a</sup>Contraceptive services are birth control counseling, birth control checkup, receipt of birth control method or prescription, sterilization counseling, and sterilization procedure.

<sup>b</sup>The 1995 National Survey of Family Growth did not ask about emergency contraception services.

<sup>c</sup>The STD question in the 1995 National Survey of Family Growth did not include counseling.

\*P<.05; \*\*P<.01; \*\*\*P<.001.

primary source for sexual and reproductive health care was a private doctor, 53.3% reported receiving any contraceptive service. In comparison, 69.9% of women obtaining their care primarily from publicly funded clinics received contraceptive services. In fact, significant differences were found between private doctors and clinics in the proportions of women receiving each type of service. Receipt of preventive gynecological care (Papanicolaou test or pelvic examination) was significantly higher among clients of private doctors (93.6%) compared with all other groups (60.2%–84.0%). Receipt of pregnancy- and STD-related care or HIV testing were both significantly higher among clinic clients than among private-doctor clients.

Overall, between 1995 and 2002, there was a significant increase in the proportion of

# TABLE 2—Women's Receipt of Sexual or Reproductive Health Care Services in the Past 12 Months, by Primary Source of the Care and Combination of Services Received: National Survey of Family Growth, 1995 and 2002

		Prim	ry Source of Sexual or Reproductive Hea		Ith Care
	Overall Priv		Public	Public Clinic <sup>a</sup>	
		Private Doctor	Title X	Non-Title X	Hospital or Other
Service dist	tribution, by type of	provider, 2002			
Any sexual or reproductive health care service, %	100.0	76.0	9.6	10.4	3.9
Any contraceptive service, b %	100.0	71.8	12.8	12.0	3.4
Papanicolaou test or pelvic examination, %	100.0	80.9	8.3	8.5	2.3
Any pregnancy-related care, %	100.0	67.6	12.1	12.4	7.9
HIV testing or any STD testing, treatment, or counseling, <sup>c</sup> %	100.0	54.2	13.9	19.1	12.8
	Services received, 2	002			
Received any sexual or reproductive health care service, weighted population estimate, no.	45 414 000	34 529 000	4 380 000	4726000	1 779 000
Any contraceptive service, <sup>b</sup> %	56.5***	53.3***	75.2***	65.0**	49.5
Papanicolaou test or pelvic examination, %	90.4	93.6*	85.1***	83.1***	60.2***
Any pregnancy-related care, %	30.1*	27.8*	40.0***	35.1*	36.6*
HIV testing or any STD testing, treatment, or counseling, <sup>c</sup> %	31.1	26.7*	48.0***	42.6***	43.7***
Provider distribution,	, by combination of	services received, 2002	2 <sup>d</sup>		
Contraceptive service alone or with Papanicolaou test or pelvic examination, %	27.9	28.3*	26.7	27.2	24.9
Contraceptive service and HIV testing or any STD care, <sup>e</sup> %	19.8***	16.2***	38.8***	28.5***	18.8
Contraceptive service and pregnancy-related care, <sup>f</sup> %	8.8	8.8	9.8	9.3	5.8
Papanicolaou test or pelvic examination, <sup>g</sup> %	26.7*	31.0*	10.9***	16.0***	10.8***
HIV testing or any STD testing, treatment, or counseling, <sup>c,h</sup> %	11.3*	10.4	9.2	14.2	24.9***
Pregnancy-related care, <sup>i</sup> %	5.5	5.3	4.7	4.9	14.7**
	Services received, 1	995			
Received any sexual or reproductive health care service, weighted population estimate, no.	43 204 000	33 223 000	4 190 000	3 155 000	2 572 000
Any contraceptive service, <sup>b</sup> %	49.6	44.2	75.0***	60.9***	47.6
Papanicolaou test or pelvic examination, %	90.1	91.5	86.5**	79.2***	63.9***
Any pregnancy-related care, %	27.2	24.7	35.9***	33.0**	31.3*
HIV testing or any STD testing, treatment, or counseling, $^{\rm c}$ %	28.6	23.4	45.7***	41.9***	43.2***
Provider distribution,	, by combination of	services received, 1995	5 <sup>d</sup>		
Contraceptive service alone or with Papanicolaou test or pelvic examination, %	25.9	25.0	30.5*	29.0	24.0
Contraceptive service and HIV testing or any STD care, $^{\rm e}$ %	14.8	11.5	32.8***	23.9***	16.4*
Contraceptive service and pregnancy-related care, <sup>f</sup> %	9.0	8.6	12.0*	8.7	9.8
Papanicolaou test or pelvic examination, <sup>g</sup> %	30.2	35.9	7.4***	14.5***	13.5***
HIV testing or any STD testing, treatment, or counseling, $^{\mathrm{c},\mathrm{h}}$ %	13.9	12.4	13.1	18.5**	29.2***
Pregnancy-related care, <sup>i</sup> %	6.4	6.7	4.1	5.4	7.1

Note. STD = sexually transmitted disease. Numbers are percentages unless otherwise noted. Data are for women aged 15 to 44 years. Percentages may not total to 100 because of rounding. <sup>a</sup>Title X is the only federal program devoted specifically to funding family planning care for low-income Americans.

<sup>b</sup>Contraceptive services are birth control counseling, birth control checkup, receipt of birth control method or prescription, sterilization counseling, sterilization procedure, emergency contraception counseling (2002 only), and emergency contraception pills or prescription (2002 only).

<sup>c</sup>The STD question in the 1995 National Survey of Family Growth did not include counseling.

<sup>d</sup>Columns total to 100.0% except where rounding occurs.

<sup>e</sup>With or without Papanicolaou test, pelvic examination, or pregnancy-related care.

<sup>f</sup>With or without Papanicolaou test or pelvic examination.

<sup>g</sup>Without contraceptive service.

<sup>h</sup>Without contraceptive service and with or without Papanicolaou test, pelvic examination, or pregnancy-related care.

<sup>i</sup>Without contraceptive service and with or without Papanicolaou test or pelvic examination.

\*P<.05; \*\*P<.01; \*\*\*P<.001, for significant differences from 1995 ("Overall" and "Private Doctor" columns) or from private-doctor clients (all other columns).

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respondents receiving any sexual or reproductive health care who received contraceptive services—from 49.6% in 1995 to 56.5% in 2002 (Table 2). This increase was caused almost entirely by the increase in contraceptive care received by women visiting private doctors—from 44.2% to 53.3%. In fact, receipt of all 4 types of care—contraceptive services, preventive gynecological care, pregnancy-related care, and STD-related care or HIV testing—increased significantly among women primarily served by private physicians, but remained unchanged for women visiting clinics or hospital or other providers.

Comparing the combination of services received for women who visited different types of providers revealed the wide range of services clinic clients receive (Table 2). In both 1995 and 2002, more women whose primary source for reproductive care was a clinic reported receiving contraceptive services either alone or in combination with other types of care than did women whose primary provider was a private doctor. Among the percentage of all clinic clients who received some contraceptive service in 2002 (69.9%), a majority (42.9% of the 69.9%) received their contraceptive care in combination with STD- or pregnancy-related services or HIV testing. Many of the women who received some contraceptive service also received preventive gynecological care. In comparison, among the percentage of private-doctor clients who received any contraceptive service in 2002 (53.3%), fewer than half (25.0% of the 53.3%) received such care in combination with STD-, HIV-, or pregnancyrelated services.

Nearly one third of all private-doctor clients (31.0%) reported receipt of only preventative gynecological care (a Papanicolaou test or pelvic examination), compared with 13.5% of clinic clients. And although the proportion of private-doctor clients reporting a combination of contraceptive and STD or HIV services increased significantly between 1995 and 2002 (from 11.5% to 16.2%) and the proportion receiving only preventative gynecological care (no contraceptive service) declined (from 35.9% to 31.0%), the differences between the combination of services received by clients of private providers and clients of clinics remained significant and striking.

### DISCUSSION

Receipt of contraceptive services among American women rose significantly between 1995 and 2002, although overall receipt of sexual and reproductive health care services remained constant. The increase in contraceptive care followed a much smaller, but significant, increase between 1988 and 1995.<sup>3</sup> Possible explanations for this trend include both increased demand for contraceptive services (e.g., because of changing contraceptive use patterns) and improved financial accessibility of contraceptive care within the private sector (e.g., because of better insurance coverage of contraceptive services).

In both 1995 and 2002, clients relying on publicly funded clinics received a broader scope of sexual and reproductive health care services than those relying on private doctors. Much of the difference is likely attributable to the different needs of clients served by different providers. Other contributing factors may include women deliberately choosing providers that offer the specific services they need and the fact that publicly subsidized clinics typically provide all clients with a comprehensive package of services. In comparison, private doctors typically assess each client's needs individually and, in some cases, may provide other primary care services the NSFG did not measure. Further analysis must be done to determine the importance of patient characteristics, access to insurance, and provider practices as contributing factors in these trends and patterns. My findings can inform the work of policymakers and program planners when developing recommendations for improving the delivery and financing of sexual and reproductive health care services in the United States.

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This brief was accepted February 25, 2008.

#### **Acknowledgments**

The research on which this brief is based was supported in part by the Office of Population Affairs, US Department of Health and Human Services (grants FPR000072 and FPRPA006017).

The author would like to thank Susheela Singh and Lawrence B. Finer of the Guttmacher Institute, New York, NY, for comments to earlier drafts of this article and Gladys Martinez of the National Center for Health Statistics, Hyattsville, MD, for assistance with and access to the restricted variables necessary for this analysis.

**Note**. The conclusions and opinions expressed here are those of the author and not necessarily those of the Department of Health and Human Services.

#### **Human Participant Protection**

This study consisted only of secondary analysis and no protocol approval was needed.

#### References

1. Frost JJ, Frohwirth L, Purcell A. The availability and use of publicly funded family planning clinics: US trends, 1994–2001. *Perspect Sex Reprod Health.* 2004;36:206–215.

2. *Statistical Abstract of the United States: 2007.* 126th ed. Washington, DC: US Census Bureau; 2006.

3. Frost JJ. Public or private providers? US women's use of reproductive health services. *Fam Plann Perspect.* 2001;33:4–12.

4. Lindberg LD, Frost JJ, Sten C, Dailard C. The provision and funding of contraceptive services at publicly funded family planning agencies: 1995–2003. *Perspect Sex Reprod Health.* 2006;38:37–45.

 Gold RB. Medicaid family planning expansions hit stride. *Guttmacher Rep Public Policy*. 2003;6: 11–14.

 Sonfield A, Gold RB, Frost JJ, Darroch JE. US coverage of contraceptives and the impact of contraceptive coverage mandates, 2002. *Perspect Sex Reprod Health.* 2004;36:72–79.

 Mosher WD, Martinez GM, Chandra A, Abma JC, Willson S. Use of Contraception and Use of Family Planning Services in the United States: 1982–2002. Hyattsville, MD: National Center for Health Statistics; 2004. Advance Data from Vital and Health Statistics, 350.

8. Chandra A, Martinez GM, Mosher WD, Abma JC, Jones J. Fertility, family planning and reproductive health of US women: data from the 2002 National Survey of Family Growth. *Vital Health Stat.* 2005; 23(25):1–160.

9. Abma JC, Chandra A, Mosher WD, Peterson L, Piccinino L. Fertility, family planning and women's health: new data from the 1995 National Survey of Family Growth. *Vital Health Stat.* 1997;23(19): 1–114.

10. Frost JJ. Using the NSFG to examine the scope and source of contraceptive and preventative reproductive health services obtained by US women, 1995– 2002. Paper presented at: The 2006 Research Conference on the National Survey of Family Growth; October 19–20, 2006; Hyattsville, MD. Available at: http:// www.cdc.gov/pub/about/major/nsfg/nsfgconf.htm. Accessed May 4, 2008.