

Contraceptive Use in Canada: 1984–1995

By Kelly Martin and Zheng Wu

Context: In every country, contraceptive behavior has important implications for fertility and the prevalence of sexually transmitted diseases (STDs). There has been relatively little attention to contraceptive practices in Canada, however, particularly how patterns of method use may have changed.

Methods: Data on contraceptive use were collected from 5,315 women in the 1984 Canadian Fertility Survey, and from 3,220 women and 3,449 men in the 1995 General Social Survey.

Results: Among Canadian women aged 15–49, current contraceptive use declined from 69% to 60% between 1984 and 1995. Pill use dropped from 19% to 17%, and IUD use declined from 6% to 3%. However, during the same period, condom use increased from 6% to 10%; tubal ligation declined from 24% to 17%, while vasectomy increased. In addition, the proportion of women sterilized for reasons other than contraception rose between 1984 and 1995. Men were less likely to rely on sterilization than were women (31% vs. 40%). Men reported higher levels of condom use (22%), but lower levels of pill use among their partners (9%), than did women (10% and 17%, respectively).

Conclusions: Contraceptive behavior in Canada is unique: The decline in contraceptive use over the last decade has left Canada's overall contraceptive prevalence among the lowest in the industrialized world, and the rate of sterilization among the highest. These changes in contraceptive behavior complicate efforts to plan for social and health needs, particularly policy decisions focusing on reducing infections with STDs.

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Contraception should meet the physical, mental and social health needs of individuals throughout their lives.¹ While the wide availability and low cost of contraception have contributed to the decline in Canadian fertility over the past two decades, recent concerns regarding sexually transmitted diseases (STDs), including HIV and AIDS, have complicated contraceptive issues. Thus, contemporary contraceptive practice is often undertaken both to regulate fertility and to provide protection from STDs.

There has been relatively little scientific scrutiny of Canadian contraceptive practices, however. The 1984 Canadian Fertility Survey (CFS) was the first national study of the fertility of women in their childbearing years in Canada. Prior to this survey, patterns of contraceptive use had not been extensively researched in Canada, nor had the issues of HIV and AIDS been brought to general public attention. While the 1984 CFS provided an extensive account of women's contraceptive use in

Canada in the mid-1980s, we know virtually nothing about contraceptive use among Canadians during the 1990s.²

The 1995 General Social Survey (GSS-95) collected detailed information on contraceptive use, as well as fertility and union histories, from a nationally representative sample of Canadian women and men aged 15 and older. The main objective of this article is to use these data to update our knowledge of contraceptive use in Canada in the 1990s. Thus, we provide a descriptive account of contraceptive practices among women and men of all marital statuses and focus on changes in their contraceptive choices over the past decade. Moreover, as few fertility surveys have collected information on men's contraceptive use, the GSS-95 provides a rare opportunity to study men's contraceptive behavior.

Data and Methods

Data

The 1984 CFS was the only in-depth national fertility survey conducted in Canada. The target population was all women aged 18–49, regardless of their marital status. The survey excluded women living in the Yukon and Northwest Territories,* institutionalized women, women living

in households without telephones and those unable to speak either English or French. Telephone survey methods were used to collect the data. A total of 5,315 women aged 18–49 completed interviews, a 70% response rate.

In the CFS, women were asked to provide detailed information about their childbearing intentions and experiences, contraceptive practices and other socio-economic characteristics. Information regarding sexual activity was not collected, as it was deemed too sensitive for telephone interviews.³

The GSS-95, which was administered by Statistics Canada, was the 10th cycle of the General Social Survey series. The survey used a national probability sample of 5,914 women and 4,835 men aged 15 and older (N=10,749). As in the CFS, telephone interview techniques were used to collect the data, and the overall response rate was 81%. Residents of the Yukon and Northwest Territories and institutionalized residents were excluded.

The GSS-95 focused on the family. It collected detailed information on marital and childbearing histories, reproductive intentions, contraceptive practices and demographic characteristics. While both surveys collected data on contraceptive use, the CFS had a more restricted sample selection by limiting the survey to women aged 18–49. In order to study the change in contraceptive use, we restricted the GSS-95 sample to women aged 18–49 and men aged 18 and older. With these restrictions, our GSS sample included 3,220 women and 3,449 men.

In both surveys, information on contraceptive use was collected by asking respondents what contraceptive method (or methods) they (or their partner) were currently using and how long they had been using that method. While the CFS collected information on multiple method use, only the most effective current birth control method was retained in the data set that was released for public use. The GSS simply asked respondents to report

*The impact of the exclusion of women in the Yukon and Northwest Territories on the validity of the survey was estimated to be minimal, as only 0.2% of women older than 18 were living in these areas at the time, according to the 1981 Canadian census.

Kelly Martin is a graduate student and Zheng Wu is associate professor, both in the Department of Sociology, University of Victoria, Victoria, British Columbia, Canada. The authors thank Randy Hart for editorial assistance.

Table 1. Percentage distribution of respondents, by current contraceptive use, according to sex, 1984 Canadian Fertility Study (CFS) and 1995 General Social Survey (GSS)

Status	1984 CFS Women (N=5,315)	1995 GSS	
		Women (N=3,220)	Men (N=3,449)
Using reversible method	35.6	32.1	34.8
Pill	19.2	16.9	9.1
Condom	6.2	9.5	22.4
IUD	5.7	2.6	1.3
Diaphragm	1.2	0.3	0.1
Foam	0.5	0.3	0.3
Rhythm	1.6	0.8	0.6
Withdrawal	0.8	0.5	0.1
Other†	0.4	1.2	1.2
Using nonreversible methods	39.9	40.4	31.1
Female sterilization (tubal ligation)	24.2	17.3	10.6
Male sterilization (vasectomy)	8.7	10.6	13.1
Sterilized for medical reasons	7.0	12.5	7.7
Other	24.6	27.5	33.8
Pregnant	3.8	2.4	4.0
Using no contraceptive method	20.8	25.1	29.8
Total	100.0	100.0	100.0

†The CFS includes douche; the GSS includes sponge. Note: All percentages are weighted; all Ns are unweighted.

their primary contraceptive method.

In the CFS, tubal ligation and vasectomy were classified as methods of contraception, whereas hysterectomy and other noncontraceptive surgical sterilization were treated as instances of sterilization for medical purposes. However, in the GSS, respondents were asked if they or their partner had been sterilized to prevent pregnancy or for medical purposes. Those who responded “yes” or “both” were considered sterilized for contraceptive reasons, while those who responded “no” were considered medically sterilized. When a respondent reported that both partners in a couple were sterilized for contraceptive or medical purposes, only the information concerning the respondent’s sterilization was retained.

In this analysis, we focus on the contraceptive method that the respondent reported relying upon. This choice does not necessarily reflect the method used by the respondent personally. Because most contraceptive methods are gender-specific (only women use the pill, while only men have vasectomies), the method the respondent reported may well be the contraceptive method used by his or her partner.

In this article, most measurements of socioeconomic and demographic characteristics are generally self-explanatory. However, we used family income as an indicator of socioeconomic status in this study, and in order to make meaningful comparisons across time, we measured income in four quartiles. Thus, quartile 1 includes respondents whose family income was in the

lowest quarter of the population, while quartile 4 consists of those with a family income in the highest quarter.

Overall Findings

Aggregate Trends

In 1984, 36% of women of childbearing age were using reversible contraceptive methods, while 40% were protected by nonreversible methods—33% by contraceptive sterilization and 7% by sterilization for medical reasons (Table 1). Nearly 21% of nonpregnant women in their childbearing years did not practice contraception in 1984. The level of overall contraceptive practice (including nonreversible

methods) in Canada in 1984 was among the highest in the world, and use of sterilization for contraception was also at one of the highest levels among industrialized countries.⁴

Women’s contraceptive practices in 1995 were similar to those in 1984. In both years, reliance on nonreversible methods was more common than use of reversible ones, and nonuse was the least common alternative for women of childbearing age. However, overall contraceptive practice has changed somewhat in Canada since 1984. For women of reproductive age, the proportion using reversible methods declined to 32% in 1995, whereas the share using nonreversible methods remained virtually unchanged. Levels of voluntary sterilization remain high in Canada when compared with other developed countries.⁵

The proportion of women who were not using any contraceptive method increased from 21% to 25%. Overall contraceptive prevalence (including tubal ligation and vasectomy, but excluding noncontraceptive sterilization) declined from 69% to 60%.

Among all reversible methods, the pill and condom remained the most popular choices among women. While pill use declined from 19% to 17% between 1984 and 1995, condom use increased from 6% to 10%. The use of all other reversible methods declined somewhat during this time period, with IUD use falling from 6% to 3%. Levels of sterilization remained similar, but the type of sterilization changed dramatically: There was a substantial decline in tubal ligation (from 24% to 17%) and an increase in vasectomy and in ster-

ilization for medical reasons.

There were gender differences in sterilization as well. The level of sterilization (whether the respondent reported being personally sterilized or relying on medical sterilization) was generally lower among men than among women (31% vs. 40%). While women were more likely than men were to report relying on female sterilization, the reverse was true for vasectomy. As would be expected, the level of sterilization for medical reasons was also higher for women than for men.

Age Patterns

In 1984, oral contraceptive use was much less common among women older than age 29 than among younger women (Table 2). By 1995, pill use among Canadian women remained common until after age 35. This may be attributable to the more recent marketing of pill formulations with lower estrogen levels that are safer for older women.⁶

Condom use was higher among all age-groups in 1995 than in 1984, with the exception of women aged 45–49. In this age-group, the prevalence of condom use declined from about 6% in 1984 to 1% in 1995. IUD use declined among all age-groups, again with the exception of women aged 45–49, whose use of the IUD increased. Prevalence rates for the diaphragm, foam, rhythm and withdrawal all generally declined during this period.

Among women younger than 30, reversible methods predominated in 1984 and 1995; in both surveys, rates of sterilization rose as women aged. In terms of specific methods of sterilization, the prevalence of tubal ligation declined substantially among all age-groups between 1984 and 1995; in contrast, vasectomy increased somewhat among women aged 30–49. Sterilization for medical reasons also increased in all age-groups up to age 45.

The proportion of respondents who reported not having used a contraceptive method increased in all age-groups between 1984 and 1995. The increase was particularly apparent in older age-groups. While the rise in nonuse could reflect an increased demand for children, the stable fertility during this period (a total fertility rate of about 1.6 lifetime births per woman)⁷ lends little support to this hypothesis. Differences in contraceptive prevalence may also reflect variations in the two surveys’ content and structure.

Users and Nonusers

While age is an important determinant of contraceptive use, patterns of contraceptive practice may also vary according to

Table 2. Percentage distribution of women aged 18–49, by current contraceptive practice, according to age-groups and year of survey

Status	18–24		25–29		30–34		35–39		40–44		45–49	
	1984 (N=1,318)	1995 (N=600)	1984 (N=990)	1995 (N=491)	1984 (N=924)	1995 (N=582)	1984 (N=847)	1995 (N=574)	1984 (N=643)	1995 (N=518)	1984 (N=593)	1995 (N=455)
Using reversible method	54.8	53.2	51.4	49.7	35.7	40.5	21.8	23.5	12.7	13.1	10.7	6.6
Pill	43.7	38.0	26.7	29.8	13.1	20.9	5.1	6.1	2.1	1.2	0.1	1.9
Condom	4.6	12.6	9.8	11.5	7.5	11.8	5.7	10.9	3.5	6.7	5.6	1.4
IUD	3.5	0.8	8.2	4.1	10.0	2.9	6.7	3.8	2.8	1.9	1.0	2.4
Diaphragm	0.4	0.0	2.6	0.5	1.1	0.1	1.4	0.0	1.0	1.1	0.5	0.0
Foam	0.2	0.4	0.7	0.5	0.8	0.5	0.5	0.2	0.6	0.1	0.7	0.0
Rhythm	1.0	0.3	1.6	0.6	2.1	1.3	1.7	1.2	2.0	0.5	1.6	0.5
Withdrawal	0.9	0.2	1.4	0.9	0.7	0.7	0.4	0.6	0.5	0.3	0.7	0.2
Other†	0.5	0.9	0.4	1.8	0.4	2.3	0.3	0.7	0.2	1.3	0.5	0.2
Using nonreversible method	2.6	3.6	18.3	14.6	42.7	33.0	65.1	54.9	77.6	70.7	77.4	74.2
Female sterilization (tubal ligation)	1.3	0.6	11.1	4.8	26.6	11.6	42.4	25.6	46.7	29.5	42.8	36.1
Male sterilization (vasectomy)	0.9	0.5	5.3	4.0	12.5	13.5	13.9	16.1	16.5	17.6	9.9	12.8
Sterilized for medical reasons	0.4	2.5	1.9	5.8	3.6	7.9	8.8	13.2	14.4	23.6	24.7	25.3
Other	42.8	43.4	30.3	35.7	21.6	26.6	13.1	21.6	9.7	16.2	12.0	19.3
Pregnant/not using contraceptive method‡	42.8	43.4	30.3	35.7	21.6	26.6	13.1	21.6	9.7	16.2	12.0	19.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

†The CFS includes douche and the GSS includes the sponge. ‡Includes pregnant women. *Note:* see note to Table 1.

other factors, such as education and marital status.⁸ A comparison of users and nonusers by selected individual-level characteristics reveals that with few exceptions, levels of contraceptive use differed significantly between various social groups (as indicated by the chi-square values in Table 3, page 68).

For both genders, the rate of contraceptive use increased with age until the late 30s and declined thereafter. While the rate of contraceptive use decreased among women of all age-groups between 1984 and 1995, the largest decrease occurred among women aged 30–44. The highest proportions of nonusers in 1995 were among women aged 18–24 (46%) and among women aged 45 and older (45%). For men, the highest proportion of nonusers was among 18–24-year-olds (46%). While there were no discernible differences by gender in patterns of contraceptive use until age 44, the higher rate of use among men aged 45 and older than among comparable women may reflect greater reliance on vasectomy in 1995 among men than among women (see Table 1).

Contraceptive users are more likely to be married or living with a partner, reflecting in part a generally higher level of sexual activity among married and cohabiting couples. Indeed, in an unreported analysis of data from the 1996 National Population Health Survey, we found that more than 97% of married men and women had had sexual intercourse within the past 12 months, compared with only 83% of those who had never married and 66% of those who had been previously married. The higher rate of contraceptive

use among married and cohabiting couples may also reflect a higher proportion of older married women in their family planning years, or women who have reached their desired family size.⁹ However, between 1984 and 1995, contraceptive use fell for women of all marital statuses, most conspicuously among formerly married women (from 65% to 49%). This may be due to women's increased level of sterilization for medical reasons.*

In 1984, contraceptive use increased with parity and was high among individuals who did not desire additional children (Table 3). In 1995, for men and for women, there was little difference in use between those with no children and those with one child, although contraceptive use was considerably greater among those with two or more children. While there was no marked gender difference in contraceptive use across parities, women's contraceptive use fell between 1984 and 1995 at all parities. The reduction was particularly evident for women with children.

Contraceptive use did not vary significantly by women's educational status in the CFS sample, but education and contraceptive use were positively associated for both men and women in the GSS sample. Consistent with the well-known negative relationship between higher education and fertility, we found that contraceptive use increased with educational attainment. More educated women may know more about their contraceptive options and may better understand the health implications of various methods.

The 1995 data suggest a positive association between income and contraceptive

use. Moreover, the rate of contraceptive use varied according to men's employment status, with increased use among men working outside the home.

While recent research has suggested that the role of religious affiliation in determining childbearing decisions has weakened, church attendance was considered an influential determinant of Canadian fertility in 1984.¹⁰ Our findings are consistent with earlier studies suggesting that contraceptive use decreases with religious attendance. While contraceptive practice did not vary much according to religious denomination, prevalence was highest among people with no religious affiliation. Further, between 1984 and 1995, the rate of contraceptive use declined in all religious groups, as well as at all levels of church attendance.

Some researchers have suggested that immigrant status may influence contraceptive practice, because some immigrants may be less comfortable with med-

*The two surveys classified medical sterilization differently: In the CFS, respondents were classified as having had a hysterectomy or other surgical sterilization, while in the GSS, respondents were asked if they had been sterilized for contraceptive or medical purposes. Nevertheless, we do not believe that this difference accounts for the substantial increase in sterilization for medical reasons among all women. Formerly married women, however, are more likely than other women to be older and are more likely to have been sterilized for medical reasons. One possible explanation for the increase in sterilization for medical reasons is that women who have been surgically sterilized for contraceptive reasons are four times as likely as other women to have had a hysterectomy within five years of their sterilization. (Source: Hillis S et al., Higher hysterectomy risk for sterilized than for nonsterilized women: findings from the U.S. Collaborative Review of Sterilization, *Obstetrics and Gynecology*, 1998, 91(2):241–246.)

Table 3. Percentage distribution of respondents, by contraceptive use or nonuse and by year, according to selected socioeconomic and demographic characteristics

Characteristic	1984 CFS		1995 GSS				Total
	Women		Women		Men		
	Users (N=3,637)	Nonusers† (N=1,678)	Users (N=1,932)	Nonusers† (N=1,288)	Users (N=2,019)	Nonusers† (N=1430)	
Age							
18–24	56.8	43.2	54.2	45.8	54.3	45.7	100.0
25–29	67.8	32.2	58.5	41.5	56.2	43.8	100.0
30–34	74.9	25.1	65.5	34.5	57.4	42.6	100.0
35–39	78.1	21.9	65.2	34.8	63.1	36.9	100.0
40–44	75.9	24.1	60.2	39.8	59.6	40.4	100.0
>45	63.3	36.7	55.4	44.6	60.9	39.1	100.0
<i>Chi-square (df=5)</i>	160.7***		26.7***		13.0***		
Marital status							
Married/cohabiting	74.2	25.8	66.7	33.3	63.6	36.4	100.0
Formerly married	65.1	34.9	49.2	50.8	49.8	50.2	100.0
Never-married	50.9	49.1	45.2	54.8	49.7	50.3	100.0
<i>Chi-square (df=2)</i>	222.9***		124.7***		63.6***		
No. of children							
0	54.9	45.1	49.9	50.1	49.9	50.1	100.0
1	62.7	37.3	50.8	49.2	47.9	52.1	100.0
≥2	79.9	20.1	69.7	30.3	70.6	29.4	100.0
<i>Chi-square (df=2)</i>	330.6***		128.6***		157.5***		
Intend to have more children							
Yes	56.4	43.6	52.1	47.9	48.9	51.1	100.0
No	75.3	24.7	63.9	36.1	65.2	34.8	100.0
<i>Chi-square (df=1)</i>	204.5***		41.3***		90.2***		
Education							
Elementary school	68.4	31.6	53.5	46.5	52.0	48.0	100.0
High school	67.1	32.9	60.1	39.9	57.5	42.5	100.0
Some college/ university	69.6	30.4	61.8	38.2	60.9	39.1	100.0
<i>Chi-square (df=2)</i>	2.6		12.4**		17.1***		
Income							
Quartile 1	67.3	32.7	58.2	41.8	56.5	43.5	100.0
Quartile 2	73.2	26.8	53.4	46.6	52.1	47.9	100.0
Quartile 3	62.9	37.1	60.7	39.3	62.6	37.4	100.0
Quartile 4	73.6	26.4	68.6	31.4	62.7	37.3	100.0
<i>Chi-square (df=3)</i>	50.6***		38.6***		27.4***		
Currently working							
Yes	70.3	29.7	60.2	39.8	60.6	39.4	100.0
No	65.8	34.2	59.7	40.3	51.3	48.7	100.0
<i>Chi-square (df=1)</i>	11.9***		0.1		20.7***		
Religious affiliation							
Catholic	66.9	33.1	58.1	41.9	58.0	42.0	100.0
Protestant	69.8	30.2	61.2	38.8	57.4	42.6	100.0
Other	62.5	37.5	56.6	43.4	43.0	57.0	100.0
None	72.4	27.6	63.6	36.4	64.0	36.0	100.0
<i>Chi-square (df=3)</i>	10.0*		6.5*		24.8***		
Religious attendance							
Weekly	61.1	38.9	54.8	45.2	50.2	49.8	100.0
Sometimes	70.2	29.8	59.4	40.6	55.9	44.1	100.0
Rarely/never	71.8	28.2	62.2	37.8	61.9	38.1	100.0
<i>Chi-square (df=2)</i>	47.3***		10.1**		26.7***		
Nativity							
Foreign-born	66.3	33.7	50.9	49.1	51.9	48.1	100.0
Canadian-born	68.8	31.2	62.1	37.9	59.9	40.1	100.0
<i>Chi-square (df=1)</i>	1.8		26.1***		13.0***		
Region							
Quebec	70.5	29.5	61.6	38.4	57.1	42.9	100.0
Rest of Canada	67.6	32.4	59.5	40.5	59.1	40.9	100.0
<i>Chi-square (df=1)</i>	4.1*		1.1		1.0		

*p<.10. **p<.01. ***p<.001. †Including pregnant women and surgically sterile women. Note: see note to Table 1.

ical practices in the receiving country and may continue the contraceptive behavior that was common in their native country.¹¹ While the CFS data showed no significant

association between contraceptive use and immigrant status, in the GSS only half of immigrant women were practicing contraception, compared with 62% of non-

immigrant women. Similar patterns were also observed for men.

Demographic behavior is known to differ between the province of Quebec and the rest of Canada.¹² Dramatic social changes in the past four decades have fundamentally transformed Quebec from a rural conservative society to the most liberal part of Canada.¹³ As a result, levels of sterilization and contraceptive use increased rapidly in Quebec during the 1970s and 1980s, to levels higher than those seen throughout Canada; thus, fertility levels in Quebec have become among the lowest in the country.¹⁴ It would appear, then, that this trend in method use had reached its peak in 1984, as there was little difference in contraceptive use between the Québécois and the rest of Canadians in 1995.

Who Uses Which Methods?

In this section, we focus our attention on contraceptive users, examining which methods are used and whether the choice of method varies according to particular socioeconomic and demographic variables. To conserve space and avoid the problem of small cell sizes, we examine the five most popular methods (tubal ligation, vasectomy, oral contraceptives, condom and IUD) and combine all other methods (rhythm, diaphragm, foam and withdrawal) into one category. With few exceptions, observed differences in contraceptive use between social groups are statistically significant, based on chi-square tests.

Women in 1984–1995

•*Demographic variations.* In both survey years, rates of tubal ligation increased with women's age (Table 4). At almost every age, this method of contraception is more common among women than (their partner's) vasectomy. This was expected, as data on sterilization were retained only for the respondent's own sterilization procedure and not for his or her partner's. In both survey years, fewer than 3% of women had a tubal ligation by age 24. The percentage of women with a tubal ligation rose to more than 65% among women age 45 or older. Between 1984 and 1995, the rate of tubal ligation declined in all age-groups, particularly among women 30 or older, while the rate of vasectomy increased after age 30. Oral contraceptives were the preferred method among women younger than 30 in both surveys. Between 1984 and 1995, pill use increased for women aged 25–40, particularly those aged 30–34. Condom use also rose among women younger than 45. During this period, the use of the IUD declined among

Table 4. Percentage distribution of female contraceptive users, by current method, according to selected socioeconomic and demographic characteristics and year

Characteristic	1984								1995							
	Tubal ligation	Vasectomy	Pill	Condom	IUD	Other†	Total	N	Tubal ligation	Vasectomy	Pill	Condom	IUD	Other†	Total‡	N
Age																
18–24	2.2	1.5	76.9	8.2	6.2	5.0	100.0	749	1.1	1.0	70.1	23.2	1.4	3.3	100.0	325
25–29	16.4	7.8	39.3	14.4	12.1	9.9	100.0	671	8.2	6.9	50.9	19.6	7.0	7.3	100.0	288
30–34	35.5	16.7	17.5	10.0	13.4	6.9	100.0	692	17.8	20.6	31.9	18.0	4.4	7.4	100.0	382
35–39	54.2	17.8	6.5	7.3	8.6	5.6	100.0	661	39.2	24.6	9.4	16.8	5.8	4.2	100.0	374
40–44	61.5	21.8	2.8	4.6	3.7	5.6	100.0	488	49.1	29.2	2.1	11.2	3.1	5.4	100.0	312
>45	67.6	15.6	0.2	8.9	1.5	6.2	100.0	375	65.1	23.1	3.4	2.5	4.3	1.6	100.0	252
<i>Chi-square (df=25)</i>	1858.7***								938.4***							
Marital status																
Married/cohabiting	39.0	16.0	19.5	10.2	8.3	6.9	100.0	2,770	30.6	23.8	20.9	14.8	4.5	5.4	100.0	1,438
Formerly married	62.7	4.0	17.7	2.2	10.4	2.9	100.0	286	62.5	0.0	16.2	10.4	6.1	4.8	100.0	152
Never-married	4.3	1.0	73.4	7.3	7.2	6.6	100.0	581	6.9	0.0	64.7	22.1	2.7	3.6	100.0	341
<i>Chi-square (df=10)</i>	871.3***								449.8***							
Number of children																
0	4.5	2.9	66.5	9.6	7.9	8.6	100.0	1,027	2.9	2.5	63.7	24.5	1.5	5.0	100.0	547
1	22.6	7.6	21.1	14.6	15.7	7.4	100.0	523	18.4	8.9	35.1	24.7	4.2	8.6	100.0	255
≥2	53.7	18.8	8.0	7.5	6.6	5.4	100.0	2,088	43.9	27.1	9.6	9.5	5.7	4.2	100.0	1,130
<i>Chi-square (df=10)</i>	1571.7***								842.5***							
Intend to have more children																
Yes	0.6	0.1	65.4	14.2	10.1	9.6	100.0	1,093	0.4	0.1	65.2	24.5	3.4	6.3	100.0	553
No	50.2	18.1	11.9	6.9	7.5	5.3	100.0	2,544	40.3	24.8	13.4	12.3	4.7	4.5	100.0	1,379
<i>Chi-square (df=5)</i>	1583.8***								771.1***							
Education																
Elementary school	51.9	14.7	19.1	4.9	5.5	3.8	100.0	1,126	48.5	12.8	22.2	7.5	3.6	5.4	100.0	298
High school	28.7	12.6	36.3	7.9	8.3	6.2	100.0	1,159	36.2	21.2	22.2	14.0	4.8	1.5	100.0	400
Some college/university	27.2	11.1	28.2	13.7	10.6	9.1	100.0	1,351	21.8	17.8	31.7	18.3	4.3	6.0	100.0	1,234
<i>Chi-square (df=10)</i>	295.2***								121.2***							
Income																
Quartile 1	34.8	6.6	37.2	7.8	7.4	6.1	100.0	970	30.9	11.7	30.8	17.4	5.6	3.5	100.0	592
Quartile 2	32.1	15.3	27.2	9.9	7.9	7.6	100.0	683	25.0	11.5	34.3	16.1	5.5	7.5	100.0	416
Quartile 3	36.1	13.1	27.4	10.0	7.8	5.5	100.0	1,064	30.2	24.8	26.2	13.0	2.2	3.6	100.0	404
Quartile 4	37.4	16.7	19.5	8.8	10.0	7.5	100.0	919	28.7	24.1	22.0	15.8	3.6	5.8	100.0	520
<i>Chi-square (df=15)</i>	113.0***								83.5***							
Currently working																
Yes	33.8	11.5	30.8	8.1	9.0	6.8	100.0	2,207	29.2	18.1	29.6	14.1	4.0	4.9	100.0	1,108
No	37.6	14.5	23.7	10.7	7.2	6.2	100.0	1,430	28.6	17.2	26.4	18.0	4.7	5.1	100.0	824
<i>Chi-square (df=5)</i>	35.2***								6.9							
Religious affiliation																
Catholic	34.4	12.1	30.4	7.9	8.0	7.3	100.0	1,742	28.5	19.3	29.2	15.7	4.1	3.2	100.0	881
Protestant	38.9	14.4	24.9	8.6	7.6	5.6	100.0	1,490	32.5	19.5	25.0	13.6	3.6	5.9	100.0	611
Other	23.7	3.2	23.8	28.3	15.8	5.3	100.0	89	28.9	5.9	22.5	20.4	14.1	8.3	100.0	73
None	27.0	11.1	30.9	12.8	10.9	7.4	100.0	316	24.0	13.5	32.5	18.7	4.1	7.2	100.0	367
<i>Chi-square (df=15)</i>	93.8***								56.4***							
Religious attendance																
Weekly	43.7	14.7	15.3	9.7	5.9	10.6	100.0	835	35.9	24.0	19.0	12.6	2.8	5.6	100.0	323
Sometimes	33.1	12.3	31.8	9.1	8.2	5.4	100.0	1,437	30.4	19.8	26.8	14.8	4.3	3.8	100.0	579
Rarely/never	32.5	12.0	31.7	8.7	9.9	5.3	100.0	1,365	25.9	14.6	31.9	17.3	4.8	5.5	100.0	1,030
<i>Chi-square (df=10)</i>	125.4***								47.1***							
Nativity																
Foreign-born	38.9	11.8	13.7	16.3	8.0	11.3	100.0	488	25.7	14.6	16.3	25.5	7.8	10.1	100.0	311
Canadian-born	34.8	12.9	30.2	8.0	8.3	5.8	100.0	3,149	29.5	18.3	30.5	13.9	3.7	4.0	100.0	1,621
<i>Chi-square (df=5)</i>	95.4***								73.6***							
Region																
Quebec	33.9	12.5	30.8	8.5	8.2	6.2	100.0	1,018	27.8	18.9	30.3	14.8	5.9	2.3	100.0	503
Rest of Canada	35.9	12.8	26.9	9.3	8.3	6.7	100.0	2,619	29.3	17.3	27.5	16.1	3.8	6.0	100.0	1,429
<i>Chi-square (df=5)</i>	5.5								16.0**							

p<.01. *p<.001. †Includes diaphragm, foam, rhythm, withdrawal, douche and other contraceptive methods. Notes: Categories may not add to 100% due to rounding. Percentages are weighted; Ns are unweighted.

all women younger than age 45.

Tubal ligation was the most common contraceptive choice among married and cohabiting and previously married wo-

men in both surveys, while oral contraceptives were the preferred method of single women. For married and cohabiting women, the rate of tubal ligation declined

from 39% to 31% between the two surveys, whereas the rate of (their partner's) vasectomy rose from 16% to 24%. For single women, pill use declined somewhat

between 1984 and 1995, while condom use tripled.

As expected, the pill was the method most often used by childless women. Among women with two or more children, tubal ligation and (a partner's) vasectomy became predominant. A similar pattern was observed by desire for children: Women who desired additional children relied primarily on oral contraceptives, while those wanting no (or no more) children largely were protected from pregnancy by sterilization. Further, a decline in tubal ligation and an increase in (a partner's) vasectomy were observed among women of all parities except childless women. Condom use also increased for women at all parities.

• *Socioeconomic variations.* Tubal ligation and oral contraceptives were the main contraceptive methods used by women at all educational levels. Despite the overall decline in tubal ligation, reliance on this method actually increased among women with a high school education between 1984 and 1995. In both years, tubal ligation was the most popular method among women with an elementary education, while the pill remained most popular among those with some college or university education. Despite the overall increase in vasectomy, a decline was observed in levels of (a partner's) vasectomy among women of the lowest educational status. Pill use fell most notably among women with a high school education. Condom use increased at all educational levels, while IUD use declined at all levels.

Female sterilization and the pill also were the most popular methods among women at all income levels. Oral contraceptive use was most common among women with a lower income. While rates of tubal ligation did not vary according to income, a partner's vasectomy was more common among women with higher family income. Again, as with education, condom use increased but IUD use decreased in all income levels between 1984 and 1995. In 1984, reliance on other methods was highest among women with a higher education, while in 1995, use of other methods was highest among women with an elementary education and those with some college or university education.

• *Cultural variations.* Religious affiliation did not have much influence on contraceptive choice. While there was little difference in contraceptive preferences between Catholic and Protestant women in both years, there were some differences between these two affiliations and women of other religious faiths. Tubal ligation and oral contraceptives were the predominant

contraceptive methods used by women of all religious faiths. Except among women of "other" religious affiliations, female sterilization declined in all religious groups between 1984 and 1995, while rates of a partner's vasectomy increased in all groups. Condom use also increased in all groups except those of other religious orientations, while IUD use declined in all groups.

The same two contraceptives were the main methods used by women at all levels of church attendance, but the incidence of tubal ligation appeared to be greater among those who attended religious services more regularly, while the reverse was true for pill use. Further, between 1984 and 1995, rates of tubal ligation declined and rates of partner's vasectomy increased at all levels of church attendance. While reliance on the pill remained stable, condom use increased and IUD use decreased among all groups. Those who attended church regularly were most likely to have had a tubal ligation, but were least likely to use oral contraceptives.

Immigrant women were less likely to use the pill than were Canadian-born women, but the reverse was true for the condom. A decrease in rates of tubal ligation and an increase in rates of vasectomy and condom use were observed in both groups. Finally, regional differences in contraceptive choices were generally small and nonsignificant in 1984.

Men in 1995

• *Demographic variations.* In contrast to the situation among women, condom use predominated until age 35 among men and peaked in the early 20s (Table 5). However, as with women, vasectomy and a partner's tubal ligation became more prevalent after the late 30s. Vasectomy was more common than tubal ligation, which is consistent with the reported rates of tubal ligation among women. As expected, partner's pill use was more prevalent among younger men than among older men.

The pattern of contraceptive choices according to marital status among men was comparable to that among women. Sterilization was less common among single men than among men of other marital status. Condom use predominated among single and previously married men, whereas reliance on the pill and sterilization was more common among married and cohabiting men. Among the previously married, only 36% of men were sterilized (compared with 63% of previously married women). Also, 86% of single men were condom users, while 65% of single women used oral contraceptives. This pat-

tern of findings suggests that among single people who practice contraception, women are more concerned with fertility control, while men are more concerned with STD prevention.

Childless men were primarily condom users (71%), while 64% of childless women used the pill. Among men with one child, the proportion using condoms was reduced to 42%, while the proportion relying on sterilization increased to 24%. At higher parities, the corresponding figures were 16% and 69%, respectively. Moreover, men who desired more children were more likely to rely on condoms and (their partners') oral contraceptive use than were men who did not want any (or any additional) children.

• *Socioeconomic variations.* The effect of education was more evident in rates of tubal ligation than in rates of vasectomy. As was seen among women, the rate of partner's tubal ligation decreased as education increased, and condom use rose along with education. At all levels of education and at most levels of family income, the condom was the preferred method. However, condom use declined with rising income; this may reflect an aging effect, as family income generally rises with age, at least until partners reach middle age.¹⁵ Further, rates of both tubal ligation and vasectomy generally increase as family income rises. Finally, while work status was not associated with contraceptive choice for women, the same cannot be said for men: Employed men tended to report higher rates of sterilization and partner's pill use, but a lower rate of condom use.

• *Cultural variations.* The effect of religion on contraceptive choice was similar for men and women. Sterilization was more common among Catholics and Protestants than among others. Condom use predominated among all religious groups, particularly among men of non-Christian background. Church attendance also had some influence on contraceptive use and method choice: The rate of vasectomy increased with church attendance, while the reverse was true for condom use. These findings were generally consistent with those reported for women.

There was little gender difference in the effect of immigration status. Vasectomy was less common among immigrants than among nonimmigrants, and the opposite was true for rates of condom use. There were few variations by immigrant status in rates of tubal ligation and pill use. Finally, differences between the Québécois and the rest of Canadians in contraceptive choice were small and statistically nonsignificant.

Table 5. Percentage distribution of male contraceptive users, by current method, according to selected socioeconomic and demographic characteristics, 1995

Characteristic	Tubal ligation	Vasectomy	Pill	Condom	IUD	Other†	Total‡	N
Age								
18–24	0.2	0.4	17.5	75.8	0.5	5.6	100.0	359
25–29	2.5	3.5	26.4	63.5	0.3	3.8	100.0	273
30–34	9.4	19.4	25.9	38.2	2.4	4.7	100.0	332
35–39	20.3	31.1	16.1	26.5	2.2	3.7	100.0	358
40–44	27.3	38.3	5.7	21.0	4.1	3.5	100.0	295
>45	40.5	37.9	4.9	10.8	3.7	2.1	100.0	402
<i>Chi-square (df=25)</i>						867.4***		
Marital status								
Married/cohabiting	25.5	30.1	19.5	18.8	3.0	3.1	100.0	1,393
Formerly married	0.0	35.5	1.2	52.1	2.0	9.2	100.0	86
Never-married	0.0	0.5	7.9	86.2	0.3	5.0	100.0	540
<i>Chi-square (df=10)</i>						449.8***		
Number of children								
0	1.8	1.9	20.6	70.5	0.4	4.8	100.0	717
1	12.7	10.8	26.7	41.5	2.1	6.3	100.0	249
≥2	29.5	39.1	9.6	15.5	3.5	2.7	100.0	1,054
<i>Chi-square (df=10)</i>						892.0***		
Intend to have more children								
Yes	0.0	0.8	24.2	69.4	0.8	4.8	100.0	688
No	26.7	33.6	11.2	22.2	2.9	3.4	100.0	1,332
<i>Chi-square (df=5)</i>						725.5***		
Education								
Elementary school	25.8	24.7	14.4	32.9	0.4	1.8	100.0	352
High school	21.9	21.3	11.4	38.3	1.6	5.4	100.0	354
Some college/ university	14.2	22.1	17.1	39.7	2.9	4.0	100.0	1,313
<i>Chi-square (df=10)</i>						50.1***		
Income								
Quartile 1	14.3	15.4	20.5	44.9	1.2	3.7	100.0	495
Quartile 2	17.0	15.7	9.8	50.3	1.1	6.1	100.0	432
Quartile 3	16.9	27.1	17.4	33.0	2.1	3.5	100.0	467
Quartile 4	21.1	29.1	14.4	28.6	3.9	2.8	100.0	625
<i>Chi-square (df=15)</i>						124.6***		
Currently working								
Yes	19.8	25.1	16.3	33.1	2.3	3.4	100.0	1,636
No	8.4	11.1	12.7	60.3	1.9	5.8	100.0	383
<i>Chi-square (df=5)</i>						117.4***		
Religious affiliation								
Catholic	18.0	24.7	15.4	36.6	1.8	3.5	100.0	894
Protestant	17.9	26.3	14.6	35.3	2.5	3.4	100.0	575
Other	10.5	14.9	5.7	56.4	6.5	6.0	100.0	63
None	17.5	14.6	18.4	42.5	2.2	4.9	100.0	488
<i>Chi-square (df=15)</i>						48.3***		
Religious attendance								
Weekly	15.5	29.9	13.8	31.2	0.6	8.9	100.0	261
Sometimes	19.5	23.9	16.2	34.9	2.9	2.6	100.0	505
Rarely/never	17.2	20.3	15.8	41.1	2.3	3.4	100.0	1,254
<i>Chi-square (df=10)</i>						43.6***		
Nativity								
Foreign-born	16.9	10.6	16.8	48.0	4.3	3.4	100.0	309
Canadian-born	17.7	24.5	15.4	36.5	1.9	4.0	100.0	1,711
<i>Chi-square (df=5)</i>						39.2***		
Region								
Quebec	16.3	25.6	16.0	37.7	1.6	2.8	100.0	515
Rest of Canada	18.0	21.3	15.5	38.5	2.5	4.2	100.0	1,504
<i>Chi-square (df=5)</i>						7.1		

***p<.001. †Includes diaphragm, foam, rhythm, withdrawal, douche and other contraceptive methods. Notes: see Table 4.

Discussion

Like most social surveys, both the CFS and the GSS were limited in several respects. First, while both surveys collected data on contraceptive use, the nature and intent of these surveys differed. The CFS was a

fertility survey, whereas the GSS was a broader social survey with one module on fertility and another on fertility intentions and contraceptive issues. The order of questions regarding contraceptive practice also varied. While these differences

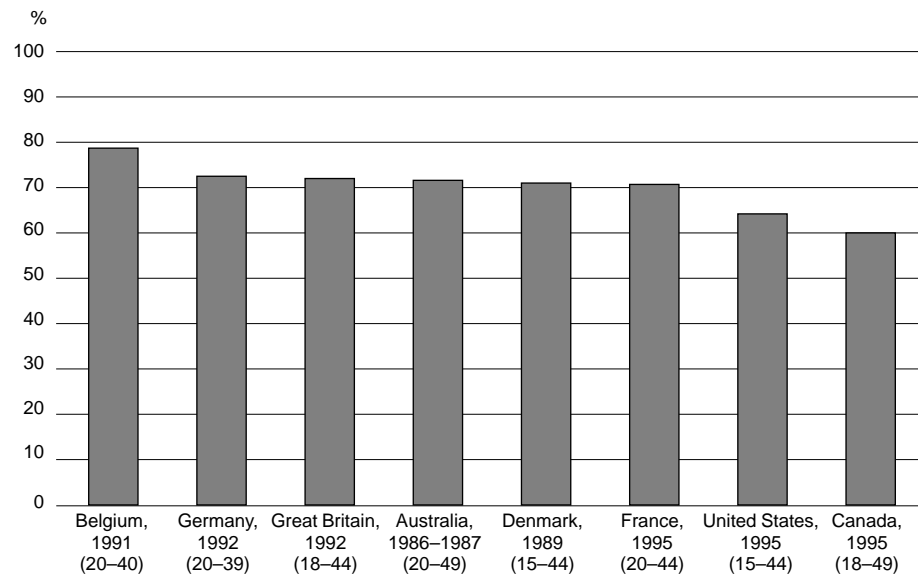
may have some impact on a comparative study of contraceptive use,¹⁶ we have no reason to believe that they pose any serious threats to the validity of the contraceptive measures in either survey. However, caution should be exercised when results are compared and interpreted across surveys.

Second, common sense tells us that people who are sexually active are more likely to use contraceptives than those who are not. Without information on sexual activity, it is difficult to estimate the true percentage of the population in need of contraceptive use. It is unfortunate that neither the CFS nor the GSS collected data on sexual activity. Data from the 1996 National Population Health Survey suggested that about 10% of Canadian men (aged 15 and older) and women (aged 15–49) had never had sexual intercourse.* Among those who had ever had intercourse, about 7% of men and 11% of women had not done so in the past 12 months. If we assume that this population is sexually inactive, then our estimates of contraceptive use may be somewhat low, although we cannot preclude the possibility that some people in this population may actually be using contraceptives. However, since the lack of information on sexual activity was consistent across the two surveys, and is common in similar surveys conducted outside Canada, it should have a minimal impact on trend studies such as this one.

Third, measurement errors may also occur in the reporting of current contraceptive use. For example, since most contraceptives are gender-specific, it is possible that one partner may not be aware of the method the other partner is using (with the probable exception of condom use). While our data do not allow us to assess the extent to which this problem may affect our measurements of contraceptive use, reporting errors are most likely to be random, and pose little threat to the validity of our measurements. Further, the respondents were not asked if they were using a method for contraceptive purposes or for protection from STDs. As such, we do not assume that condom use is intended solely for protection from STDs.

Overall, the condom was a considerably more popular method for men than for women; female interviewees were more likely to report relying on oral contraceptives. One explanation for this discrepancy is that women who rely on the pill for

*The public-use data for age from this survey are available only in five-year age-groups.

Figure 1. Percentage of women of reproductive age who are using contraceptives, selected industrialized countries

Sources: Australia, Belgium, Denmark, Germany and Great Britain—reference 4, p. 140; France—reference 17; and the United States—Piccinino LJ and Mosher WD, 1998, reference 8.

contraception may continue to use it even when they are not sexually active. There could be a similar explanation concerning men's condom use: Even when men are not sexually active, they may report the condom to be their method if they have used it in the past or intend to use it in the future.¹⁷ However, the lack of information about sexual activity precluded us from testing this assumption. Recent studies of women and men living in either a marital or a nonmarital union have suggested that couples tend to make joint decisions on their method of contraception, and there is little variation in contraceptive practices when partners are interviewed separately. However, studies of women and men of all marital statuses have shown a discrepancy of approximately five percentage points in reports of contraceptive choice.¹⁸

Prior research has shown that spacing between the first and second births is relatively short for Canadian women.¹⁹ The increase in rates of contraceptive nonuse among women with no children or only one child may reflect an increased desire to have children born closer together. Indeed, recent Canadian data have shown an increase in fertility among women in their 30s.²⁰ In other words, women who have delayed childbearing into their 30s may not want a long interval between the birth of their first and second births.

An increase in socioeconomic status tends to be associated with an elevated level of contraceptive use. This supports

the notion that socioeconomic status influences the family planning decision process. The costs and benefits associated with having children, when weighed against other goals, may lead individuals to delay marriage and childbearing until their education is complete and their careers are fully established, or until they have purchased their first home.²¹

Sterilization, oral contraceptives and the condom appear to have remained Canadians' primary contraceptive choices since the 1960s, when the contraceptive revolution began. Our analysis suggests that between 1984 and 1995, rates of contraceptive use declined somewhat among women of reproductive age. While this overall decline is consistent with previous research,²² it should be interpreted with caution, due to the differences in the surveys.

That contraceptive use seems to be declining in Canada may be of some concern. Indeed, among industrialized countries, Canada now has one of the lowest levels of contraceptive use (see Figure 1). Prevalence is even lower than in the United States; this is surprising, given that Canada's universal health care system provides Canadians with free access to medical services, including contraceptive prescriptions and sterilization procedures, while the United States has no universal health care system.²³

The decline in contraceptive practice is particularly evident for tubal ligation. One possible explanation for this overall decline is a change in the method of steril-

ization. Previous research found a decline in tubal ligations among women who were married or living in a consensual union, and suggested that younger couples are more likely to choose vasectomy over tubal ligation than are older couples.²⁴

Canada's changing age structure may also have played a role. The fertility rate has been below replacement level since the mid-1970s. Moreover, as the postwar baby boom cohort ages, the segment of the sexually active population who are in their reproductive years has declined. For example, between 1984 and 1995, the number of women aged 15–34 declined from 18% to 15% of the population.²⁵ While the rate of nonuse tends to be higher among younger women than among older women, the largest decline in contraceptive use over the past decade occurred among women aged 30 and older. Thus, the overall decline in contraceptive use may result from a larger segment of the reproductive population (women older than 30) not practicing contraception.

Why would older women not be practicing contraception? The substantial decline in rates of tubal ligation and increase in rates of sterilization for medical reasons among these women suggest that while these women are not practicing contraception, they may nonetheless be protected from unplanned pregnancy. Also, the substantial decline in rates of contraceptive use among formerly married women may indicate that these women were either sexually inactive or medically sterilized. This finding should be interpreted with caution, however, due to differences between surveys in the wording of questions concerning sterilization.

Our results suggest a substantial increase in condom use between 1984 and 1995, although the rise in condom use did offset the overall decline in reliance on other methods. The largest increase in condom use occurred among women younger than age 30. This increase does not appear to have been at the expense of women's use of the pill. Rather, the decline in use of such methods as the IUD, withdrawal and rhythm, combined with the reduction in pill use among women younger than 25, accounts for much of this shift. The rise in condom use may be indicative of increased concerns and awareness of STDs, including HIV and AIDS, and is consistent with prior research.²⁶ That this rise was most dramatic among young women is particularly encouraging. However, without knowing about multiple method use or sexual activity and history, we cannot know what proportion of

young Canadian women are actually protected from both STDs and unwanted pregnancies.

Consistent with previous research on fertility and contraception, we found that socioeconomic status is an important factor determining contraceptive behavior.²⁷ Women and men with less than a high school education were less likely to practice contraception than were women and men with a high school diploma. Lower levels of contraceptive use were also associated with lower household income. These results are consistent with prior research showing that both STDs, including HIV and AIDS, and unwanted pregnancies are more widespread among people in the lowest socioeconomic stratum.²⁸ The positive association between socioeconomic status and contraceptive use suggests that some Canadian women may delay childbearing until they are further along in their education or career development or have attained other personal goals. These demographic and social trends may have contributed to the decline in the number of first births to women younger than age 25, and the increase in the number of first births to women older than age 30.²⁹ This finding is consistent with the view that education is one of the most effective means of preventing STDs.³⁰

Our analysis of the 1995 GSS data is the first Canadian national study of men's contraceptive behavior. The results suggest that gender differences in patterns of contraceptive use are less pronounced than might be expected. Following sterilization, oral contraceptives are the preferred method for women, while for men the condom is the most popular. This may indicate a sharing of contraceptive responsibilities among men and women. Indeed, a recent study found that 78% of American men say that they share the responsibility of contraceptive decisions with their female partners.³¹

The increase in condom use among single people is particularly encouraging: Condom use tripled among single women between 1984 and 1995, and most single men reported the condom to be their primary method. This pattern suggests an active response to the growing awareness of STDs.

Women and men have different contraceptive needs at different stages of their life cycles. While no one method may ever be suitable for the entire life span, Canadians have, for the most part, relied on the same methods since the 1960s. This article has

updated women's contraceptive use in Canada since the mid-1980s and constitutes a first look at men's contraceptive behavior. However, our analysis of contraceptive use is unfortunately limited to an either-or scenario. Without information on multiple method use and on sexual activity, we cannot know to what extent Canadian women and men are vulnerable to contracting STDs and are actually at risk of unwanted pregnancy. These crucial issues will need to be addressed in future research if we are to plan for providing appropriate social and health services, especially those related to STD prevention.

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