Public Knowledge and Perceptions About Unplanned Pregnancy and Contraception in Three Countries

By Suzanne Delbanco, Janet Lundy, Tina Hoff, Molly Parker and Mark D. Smith

A 1994–1995 survey of men and women aged 18–44 in the United States, Canada and the Netherlands revealed considerable differences in public knowledge and perceptions about unplanned pregnancy and contraception. The proportion who believe that unplanned pregnancy is a "very big problem" is 60% in the United States, 36% in Canada and 6% in the Netherlands. Americans are more likely than their Canadian or Dutch counterparts to cite societal problems as significant factors in the rate of unplanned pregnancy; higher proportions of Americans also cite the cost of contraceptives (52% vs. 46% of Canadians and 34% of Dutch men and women) and an inability to obtain methods (66%, 51% and 33%, respectively). In all three countries, adults are generally well informed about the relative effectiveness of commonly used contraceptives, but Americans are more skeptical about method safety and effectiveness. For example, 17% think the pill is "very safe," compared with 21% of Canadians and 40% of the Dutch; and whereas 64% of Americans consider the pill "very effective," 73% of Canadians and 90% of Dutch men and women give it this rating. Health care professionals are the most frequently cited source of contraceptive information, but only 51–63% of adults have ever discussed contraception with such a practitioner.

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Unplanned pregnancy rates vary dramatically across developed countries. Reproductive health experts, sociologists and politicians are eager to understand why the rate of unplanned pregnancy is so much higher in the United States than in other developed countries.

Hoping to help explain some of this variation, the Henry J. Kaiser Family Foundation designed and commissioned a series of telephone surveys with adults in the United States, Canada and the Netherlands to assess differences in public knowledge of and perceptions related to pregnancy and contraception. We chose Canada because although its culture and economic growth are similar to those of the United States,[1] the proportion of pregnancies that are unplanned there (39%) is only two-thirds that in the United States (57%).[2] We selected the Netherlands because the proportion of pregnancies that are unplanned (6%[3]) is the lowest among most Western nations, and because attitudes toward sexuality reportedly are more open there.[4]

The variation in the incidence of unplanned pregnancy among these countries is strikingly reflected in the disparity in abortion rates. The overall U.S. abortion rate (25.9 abortions per 1,000 women aged 15–44) is 1.7 times that of Canada (15.3 per 1,000) and more than four times that of the Netherlands (6.0 per 1,000).[5] Differences in pregnancy rates, however, are not so marked. Again, the United States reports the highest rate (94.8 pregnancies per 1,000 women aged 15–44), which is 1.3 times that of Canada (72.0 per 1,000) and 1.5 times that of the Netherlands (62.3 per 1,000).*[6]

Why Such Variation?

The three countries' health care systems undoubtedly contribute to the disparity in rates of unplanned pregnancy and abortion through dissimilar levels of access to contraceptive services, approaches to sexuality education and sources of information about pregnancy prevention. Differences in men and women's understanding of reproductive physiology, knowledge of contraceptive methods and skill in using contraceptives may also play a role. Other possible factors, more difficult to quantify, are differences in cultural norms or religious values, as well as in the dynamics of relationships between men and women.

The extent to which a country's health care system provides coverage for its citizens certainly affects access to medical services. The systems of the United States, Canada and the Netherlands are similar in that most health care providers, such as doctors and hospitals, are in the private sector and are reimbursed by a public or private third party.[7] However, they differ with regard to whom they cover: The Canadian and Dutch governments provide coverage for virtually all of their citizens, regardless of income, as part of a national health insurance system.[8] By contrast, in the United States, government-sponsored health programs cover primarily individuals aged 65 and older and people with disabilities (Medicare) and those with very low incomes (Medicaid). Most health care coverage in the United States is provided through private, employment-based health plans with varying levels of coverage. But about 15% of the U.S. population is uninsured.[9]

In addition, Canadian and Dutch health plans typically cover all reproductive and contraceptive services, whereas U.S. health plans generally provide limited, if any, coverage of these services.[10] Cost, therefore, may be more of a barrier to consistent and effective contraceptive use in the United States than in the other two countries.[11]

Accessibility to reproductive health services is also a likely factor in the differences. Reproductive health services in the United States traditionally have been provided by specialists, who usually charge higher fees and are less geographically accessible (particularly in nonmetropolitan areas) than general practitioners.[12] By contrast, in Canada and the Netherlands, reproductive health services, including most contraceptive services, are typically provided through primary care providers, such as general practitioners.[13]

Different attitudes and beliefs about sexual activity may also affect the prevalence of unplanned pregnancy in each country. Cultural norms and religious values are often reflected in and reinforced by government laws and regulations, as

Suzanne Delbanco is program officer, Janet Lundy is health policy analyst, Tina Hoff is senior communications program officer and Molly Parker is John Gardner Public Service Fellow, all at the Henry J. Kaiser Family Foundation, Menlo Park, Calif. Mark D. Smith is president, California HealthCare Foundation, Oakland, Calif.

*Unplanned pregnancy rates are for 1988 for the United States, 1985 for Canada and 1986–1988 (based on the proportion of first births that were unintended) for the Netherlands. Abortion and pregnancy rates are for 1992 for the United States, 1993 for Canada and 1994 for the Netherlands. (See: references 2, 3, 5 and 6.)

well as by medical, educational and media policies and practices.[14] While subgroups within each country may differ in their views about sexuality and contraception, the Dutch tend to have a more open, liberal attitude; as a result, these topics may be discussed more freely and pragmatically and in a less moralistic manner in the Netherlands than they are in the United States or Canada.[15]

Furthermore, the Dutch government supports public information campaigns, school sex education programs, and information centers to help teach young people and immigrants about reproduction and contraceptive options.[16] The American and Canadian governments do not take active roles in providing the public with information about reproductive health, and their sex education programs vary by state or province and by school district.[17] Finally, news and educational media coverage of reproductive health issues is more limited in the United States and Canada than in the Netherlands.[18]

A 1986 study examining the relationships between unplanned pregnancy, contraceptive use and family planning services in the United States and a group of culturally similar Western countries explored why rates of unplanned pregnancy and abortion were so much higher in the United States than elsewhere. The results showed that the lower rates could be attributed in part to more widely available, confidential and free or inexpensive contraceptive services; national health insurance systems or national health care; the full integration of family planning services into general health care; family planning clinics that are perceived as serving all women, not just poor or adolescent women; and supportive attitudes among providers toward the use of effective contraceptives.[19]

Earlier Studies

Only two polls since the early 1980s have surveyed Americans' views of the major causes of unplanned pregnancy and their concerns about the magnitude of the problem. A 1983 survey of 1,200 adults found that many Americans believe the "increase in sexual freedom in the United States" has "caused many unwanted pregnancies" (53%), as well as "led to a general breakdown in morality" (59%), "caused many unhappy marriages and divorces" (47%), and "made too many people feel they have sexual rights that they don't really have" (39%).[20] Results of a 1988 survey of 1,000 adults showed that Americans are highly concerned about unplanned pregnancy among teenagers. In all, 71% of respondents considered unwanted pregnancies among women aged 13–18 an "extremely serious" or "very serious" problem, and 6% cited "unwanted pregnancies" as one of "the most pressing problems" facing teenagers.[21]

A 1995 comprehensive report by the Institute of Medicine concluded that the "most obvious" factor explaining the high level of unplanned pregnancy in the United States is Americans' failure to use contraceptive methods carefully, consistently or at all. However, the analysts note that the "sheer number and complexity" of influences on the unplanned pregnancy rate means that no single solution is likely to eradicate the problem, especially since the interrelationships among these factors are not well understood.[22]

In Canada, findings from a 1993 survey about contraceptive awareness, attitudes and practices revealed that women aged 15–44 are generally very aware of the diversity of methods available to them. Virtually all Canadian women know of the pill (99%) and condoms (95%).[23]

In the Netherlands, a 1994 review of the research emphasized that the country's low abortion rate is due to a multiplicity of factors, including a strong national desire to reduce reliance on abortion, widespread sexual and contraceptive education, open discussions of sexuality in the mass media and accessible family planning services.[24]

A few caveats are in order regarding the interpretation of these data. Cross-national comparisons related to reproductive health issues are complicated by a number of factors. Methodologies for collecting and analyzing data on unplanned pregnancies and other reproductive health characteristics may vary across countries. In addition, the data may not be available for the same year or may not represent populations of the same age or marital status.

Care should be used even when comparing results from the same survey conducted in more than one country. Attitudes about responding to surveys (e.g., a tendency for individuals to say they do not know an answer or to refuse to answer) may differ across countries. Translation issues must be addressed, particularly when the topic relates to sexual matters; terminology must be chosen carefully to avoid misunderstanding. Also, any broad generalizations about a country's approach, attitude or level of knowledge may be misleading. Nevertheless, the contributions that cross-country comparisons can make to our understanding of problems such as unplanned pregnancy and of alternate ways to address such problems have resulted in common use of the only data available, however imperfect.

Survey Methodology

The Kaiser Family Foundation Surveys on Public Knowledge and Attitudes About Unplanned Pregnancy and Contraception were random-sample telephone surveys of adults aged 18 and older in the contiguous United States, Canada and the Netherlands. The survey was designed by the Henry J. Kaiser Family Foundation and conducted by Louis Harris and Associates in the United States and Canada, and by R&M Research and Marketing in the Netherlands.

The sampling procedure was designed to produce representative samples of adults in households with telephones. Random-digit selection was used to assure equal representation of people in households that are listed and unlisted in telephone directories. Five attempts were made to contact potential respondents in the United States, six in the Netherlands and three in Canada, before they were discarded from the list.

In each country, the survey findings were weighted to reflect the demographic characteristics of the general population. Weights were derived from the March 1993 Current Population Survey in the United States, 1991 census data in Canada and 1994 data from the Central Bureau of Statistics and a "minicensus" in the Netherlands.[25] (The Dutch "minicensus" was based on a nationally representative sample of approximately 20,000 households. It was carried out by a research company not affiliated with the government.)

Each interview was conducted by a person of the same sex as the respondent. Interviews were conducted in English in the United States. For the Canadian and Dutch surveys, the survey instrument was translated into French and Dutch, using culturally appropriate wording, and back-translated into English for verification.

Interviews in the United States were conducted between October 12 and November 13, 1994. Of the 4,051 eligible men and women contacted by telephone, 2,002 (49%) completed the interview. Despite the low completion rate, characteristics of the unweighted sample are similar to those of the general U.S. population, except that college graduates and those with some graduate education are overrepresented (33% of the sample, compared with 21% of the general population).

In Canada, the survey took place between December 9, 1994, and January 3, 1995. Of the 4,651 eligible adults contact-

Table 1. Percentage of adults of reproductive age who say that various factors contribute "very much" or "somewhat" to the problem of unplanned pregnancy, by country, 1994–1995

Factor	United States† (N=1,140)	Canada‡ (N=594)	Netherlands§ (N=536)
Decline in moral standards	88***	68***	48***
Lack of education in general	86***	79***	54***
Lack of understanding about how to use birth control	77**	70***	50***
Inability to get birth control	66***	51***	33***
Desire to have children	62***	52***	41***,††
Cost of birth control	52*	46***	34***

*p<.05. **p<.01. ***p<.001. †p-values for U.S.-Canada comparison. ‡p-values for Canada-Netherlands comparison. §p-values for U.S.-Netherlands comparison. ††The proportion reporting "not sure" or giving no response was 15% or greater.

ed by telephone, 1,002 (22%) completed the interview. Again, although the completion rate was low, the unweighted sample very closely represents the general population; however, it underrepresents men and women aged 65 and older (7% of the sample, compared with 16% of the general population), those with less than a high school education (22% vs. 38%) and those with an annual income of more than $50,000 (31% vs. 40%).

Dutch respondents were interviewed between December 15, 1994, and January 19, 1995. Of the 2,315 eligible men and women contacted, 1,001 (43%) completed the interview. The unweighted sample matches national population estimates except that adults with lower levels of education are underrepresented (26% vs. 49%).*

The analyses reported in this article are based on respondents aged 18–44, the age-group for which these issues are most personally relevant. This restriction reduces the sample size to 1,140 in the United States, 594 in Canada and 536 in the Netherlands. For results based on these sample sizes, one can say with 95% confidence that the error attributable to sampling and other random effects is plus or minus three percentage points for the U.S. subgroup and four percentage points for the Canadian and Dutch.

*The completion rates differ slightly from the overall response rates, which include, in both the numerator and the denominator, potential respondents who were excluded because by the time they were contacted, the required number of persons of their sex had already been interviewed. The United States and the Netherlands each had a response rate of 50%; in Canada, the rate was 26%. (Notably, nonresponse in Canada was almost entirely attributable to the large number of potential respondents who declined to participate—72% of those contacted. Only about 1% of those contacted terminated the interview prematurely.)

†We define men and woman as being at risk of an unplanned pregnancy if they are sexually active (i.e., have had sexual intercourse in the last 12 months), they and their partner are fecund, they are 44 or younger and, for women, they are not pregnant or seeking pregnancy.

Findings

Unplanned Pregnancy

The survey revealed dramatic differences across countries in perceptions about the prevalence of unplanned pregnancy, defined as "a pregnancy that a woman is not actively trying to have. It could be unintended, a mistake, unwanted, or not at the right time." The proportion of Americans who think that unplanned pregnancy is a "very big" problem in their country (60%) is 10 times that of Dutch men and women (6%) and almost twice that of Canadians (36%). Similarly, the proportion of adults who consider unplanned pregnancy at least a "somewhat" big problem is substantial in all three countries, but highest in the United States (93%, compared with 81% in Canada and 41% in the Netherlands).

Among Americans, 72% of men and women believe that the incidence of unplanned pregnancy in the United States has increased over the last 10 years, and 7% think that it has decreased. (In fact, the proportion of all pregnancies that were unplanned rose from 51% in 1983 to 57% in 1988, the most recent year for which data are available.[26]) By contrast, 14% of the Dutch believe that the incidence of unplanned pregnancy in the Netherlands has risen, and 50% correctly perceive that it has declined. (In 1980–1985, 11% of first births to women aged 20–40 resulted from unplanned pregnancies; the proportion fell to 6% in 1986–1988, the most recent period for which data are available.[27]) In Canada, 46% of adults think that the incidence of unplanned pregnancy has grown, while 16% think it has declined. (No trend data are available for Canada.)

The survey asked respondents the extent to which they believe that a number of factors contribute to unplanned pregnancies. In all three countries, the factors most commonly identified as contributing "very much" or "somewhat" are a decline in moral standards and a general lack of education (Table 1). However, the proportions of Americans citing these factors (88% and 86%, respectively) are slightly higher than those among Canadians (68% and 79%) and considerably higher than the proportions among Dutch men and women (48% and 54%).

American men and women are also much more likely to view the cost of contraceptives and the inability to obtain them (52% and 66%, respectively) as factors than are their Canadian (46% and 51%) and Dutch (34% and 33%) counterparts. This finding may reflect the differences in these countries' health care systems.

Levels of knowledge about the most fertile time in a woman's menstrual cycle and her likelihood of becoming pregnant if she has unprotected intercourse are important factors in men and women's ability to assess risk accurately and thereby prevent unplanned pregnancies. The survey findings indicate that 43% of Canadians, 40% of Americans and 29% of Dutch men and women are unable to correctly identify the most fertile time in a woman's menstrual cycle. The proportions saying they are not sure or giving no response are higher among Dutch and Canadian respondents (11% and 10%, respectively) than among Americans (4%). On average, women in the three countries are 37% more likely than men to know when the most fertile time is.

Adults in all three countries underestimate the likelihood that a sexually active woman not using contraceptives will become pregnant. Whereas an estimated 85% of women having unprotected intercourse will become pregnant within one year,[28] Americans believe that the proportion is 61%, Canadians 59% and Dutch 53%. The Dutch respondents were more likely to answer that they were not sure about this or to give no response (17%) than were the Canadians (9%) or Americans (2%). Men and women, including those at greatest risk of an unplanned pregnancy,† were equally misinformed.

Contraception

Men and women's views of the effectiveness of the most commonly used contraceptive methods accord fairly well with the methods' actual effectiveness (Table 2). Among Americans and Canadians, sterilization is the method most often perceived as "very effective" (by 87% and 83%, respectively), followed by the pill (64% and 73%, respectively). In the Netherlands, adults are equally likely to consider sterilization and the pill very effective (90%).

Condoms are the next most likely to be perceived as very effective. They get this rating from higher proportions of adults (38–52%) than do the diaphragm (18–29%) and rhythm (6–9%), even though the actual failure rates of these three methods are very similar. In all three countries, rhythm, withdrawal and spermicides (foam, cream, jelly and suppositories) are least often identified as very effective methods.

Americans are the least likely to rate the pill as very effective, despite its compar-

Table 2. Percentage of adults of reproductive age rating various contraceptive methods "very effective," by country, and actual U.S. failure rates

Method	% of respondents			Failure rate
	United States†	Canada‡	Netherlands§	
Sterilization	87*	83	90***	††
Pill	64***	73***	90***	6.0
Condom	38	40***	52***	16.0
Diaphragm	29***	18	19***,‡‡	18.0
Rhythm	9	7	6	19.0
Withdrawal	12	9*	3***	24.0
Spermicide	9*	6‡‡	5**,‡‡	30.0

*p<.05. **p<.01. ***p<.001. †p-values for U.S.-Canada comparison. ‡p-values for Canada-Netherlands comparison. §p-values for U.S.-Netherlands comparison. ††The survey question did not specify male or female sterilization; the failure rate of male sterilization is 0.2% and of female sterilization is 0.5%. ‡‡The proportion reporting "not sure" or giving no response was 15% or greater. *Note*: The failure rate is the proportion of women who would have an unintended pregnancy during the first year of typical use. *Source*: **Failure rates**—S. Harlap, K. Kost and J.D. Forrest, *Preventing Pregnancy, Protecting Health: A New Look at Birth Control Choices in the United States*, The Alan Guttmacher Institute, New York, 1991, pp. 120–122.

atively low failure rate. On the other hand, they are the most likely to give this rating to methods with relatively high failure rates, such as the diaphragm, rhythm, withdrawal and spermicides.

The most striking differences in respondents' perceptions about which methods are "not very effective" are between the Dutch and Americans (not shown). The overwhelming majority of Dutch men and women consider withdrawal and rhythm to be not very effective (86% and 73%, respectively), compared with only about half of Americans (57% and 44%, respectively). In addition, even though the diaphragm and condoms have failure rates similar to that of rhythm, and spermicides are somewhat more likely to fail, far fewer adults in all three countries consider these methods not very effective (7–19%, 3–7% and 24–37%, respectively).

As shown in Table 3, condoms are the method considered "very safe" by the highest proportions of men and women (56% in the United States, 66% in Canada and 82% in the Netherlands), followed by male sterilization (48%, 53% and 66%, respectively). Considerably fewer adults in each country believe that female sterilization is very safe (35–59%), and the proportions giving this rating to the remaining methods are markedly lower. Among Americans and Canadians, the IUD is the method most often considered "very unsafe," but Dutch men and women are equally likely to give the IUD and spermicides this rating (not shown).

When asked what sources they typically rely on for information about contraception, respondents in each country named a total of about 15 sources; the average number of sources mentioned per person was 1.4. By far the largest proportions of men and women in each country rely on health care professionals as a source of contraceptive information (64% in the United States, 68% in Canada and 79% in the Netherlands—see Table 4). Americans are about 1.5–3.0 times as likely as Canadians or Dutch men and women to rely on magazines, family, friends or peers, and television. Women in all three countries are about 1.5 times as likely as men to seek contraceptive information from health care professionals; men are 2.5 times as likely as women to rely on television as a source of information (not shown).

Although health care professionals were named as the leading source of information on contraception, only 25–34% of adults in these countries have discussed this topic with a professional in the past two years. Furthermore, only 51–63% have ever done so. Women in all three countries are 2–3 times as likely as men to have had a discussion about contraception with a health care professional at least once.

An overwhelming proportion of sexually active adults in the United States (86%), Canada (87%) and the Netherlands (90%) believe that their current or most recent partner takes enough responsibility for preventing unplanned pregnancy; differences between men and women are negligible. However, among men and women of reproductive age, only 26% of Americans, 31% of Canadians and 39% of Dutch believe that "most men" are "responsible enough." In the United States, men are 48% more likely than women to say that most men are "responsible enough," and in Canada, they are 21% percent more likely; by contrast, Dutch men and women are about equally likely to hold this view (40% and 37%, respectively).

In all three countries, contraceptive users most often believe that both partners share the responsibility for initiating discussions about contraception (Table 5, page 74). Nevertheless, this perception is somewhat less common in the United States (41%) than in Canada and the Netherlands (51% each). American and Dutch method users predominantly think that women are responsible for choosing a method (49% and 50%, respectively) and ensuring that it is used (44% and 51%); Canadians, on the other hand, are most likely to perceive choosing a method and ensuring its use to be shared responsibilities (43% and 49%, respectively). Paying for contraceptives is primarily thought to be a shared responsibility in Canada and the Netherlands (38% and 41%), but is most likely to be viewed as a man's responsibility in the United States (34%).

Discussion

The survey findings suggest that public knowledge about and perceptions regarding contraception and unplanned pregnancy are related to the incidence of unplanned pregnancy. For example, Americans are more likely than Canadian or Dutch men and women to say that all of the factors suggested in the survey contribute "very much" to unplanned pregnancy. While this difference may reflect disparities between the United States and the other two countries in the availability of reproductive health information and the accessibility of contraceptive methods, it may also indicate a stronger desire on the part of Americans to attribute a societal cause to the problem.

The United States is the only country of these three in which a majority of adults believe that the problem of unplanned pregnancy is getting worse. While this finding demonstrates an accurate understanding of the magnitude of the problem, it may also reflect greater fear among Americans of the personal or societal con-

Table 3. Percentage of adults of reproductive age rating various contraceptive methods "very safe"

Method	United States†	Canada‡	Netherlands§
Condom	56***	66***	82***
Male sterilization	48*	53***	66***
Female sterilization	35*	40***	59***
Diaphragm	24	21*	26††
Pill	17*	21***	40***
Spermicide	16	16††	15††
IUD	4***	9***,††	21***

*p<.05. **p<.01. ***p<.001. †p-values for U.S.-Canada comparison. ‡p-values for Canada-Netherlands comparison. §p-values for U.S.-Netherlands comparison. ††The proportion reporting "not sure" or giving no response was 15% or greater.

Table 4. Percentage of adults of reproductive age citing various sources of information about contraceptives

Source	United States†	Canada‡	Netherlands§
Health care professionals	64	68**	79***
Magazines	23***	15	13***
Friends or peers	14***	6	5***
Television	13**	8	9*
Family	10***	5	5***

*p<.05. **p<.01. ***p<.001. †p-values for U.S.-Canada comparison. ‡p-values for Canada-Netherlands comparison. §p-values for U.S.-Netherlands comparison.

Table 5. Percentage distribution of current contraceptive users, by perceptions about which partner takes responsibility for various aspects of use

Aspect and partner reponsible	United States† (N=607)	Canada‡ (N=325)	Netherlands§ (N=368)
Initiating discussion			
Male	16*	10*	6***
Female	37**	28	34
Shared	41**	51	51**
Neither	4	7	6
Not sure/ no response	2	4	3
Choosing method			
Male	16	12**	5***
Female	49*	41*	50
Shared	33**	43	39
Neither	1	2	5**
Not sure/ no response	1	2	1
Ensuring method is used			
Male	14	12	10*
Female	44**	33***	51*
Shared	40**	49**	38
Neither	<1***	3*	1
Not sure/ no response	2	2**	<1*
Paying for method			
Male	34**	25***	9***
Female	27	22	23
Shared	31*	38	41**
Neither	7*	12***	26***
Not sure/ no response	1	3	1
Total	100	100	100

*p<.05. **p<.01. ***p<.001. †p-values for U.S.-Canada comparison. ‡p-values for Canada-Netherlands comparison. §p-values for U.S.-Netherlands comparison.

sequences of unplanned pregnancies.

Our findings that substantial proportions of adults in all three countries are uninformed about the time during the menstrual cycle when a woman is most fertile and about the likelihood of conception if women have unprotected intercourse do not contribute to explaining country differences in unplanned pregnancy rates. Rather, they suggest a need in all three countries for better education about reproductive physiology and the risk of pregnancy.

On both of these topics, Dutch and Canadian respondents were more likely than Americans to say that they were not sure of the answer or to give no response. These differences may reflect cultural variations in men and women's willingness to answer questions of a personal and sexual nature or to admit that they do not know the answer. Dutch adults' higher level of knowledge about a woman's fertile period may be a factor in the lower unplanned pregnancy rate in the Netherlands. However, no logical link is apparent between their more widespread underestimation of the risk of pregnancy when women have unprotected intercourse and their lower unplanned pregnancy rate.

Adults in all three countries have a generally accurate understanding of the relative effectiveness of commonly used contraceptive methods. Americans, however, are the most skeptical about the effectiveness of some of these methods, particularly the pill and condoms. This could be a result of insufficient education on that subject or could reflect that Americans may be more likely to have experienced or to know someone who has experienced a contraceptive failure, since they are less likely to choose an effective method. (For example, the pill is the choice of 25% of sexually active adults in the United States, 30% in Canada and 44% in the Netherlands; for the IUD, the proportions are 1%, 2% and 10%.[29])

Similarly, while adults in all three countries have a generally accurate understanding of the relative safety of various contraceptives, Americans express more skepticism. Their lack of confidence in contraceptive effectiveness and safety, sometimes warranted and sometimes not, may influence their decision to not use any method, to use a method inconsistently or to use a less effective method. Perhaps Americans are exposed to greater levels of media coverage of health risks or adverse health effects of contraceptives, without comparable coverage of studies revealing the health benefits. Health care personnel in the United States may also conduct more thorough patient counseling on the potential adverse health effects of contraceptives, in part to protect against malpractice litigation, thus creating heightened concern.

The survey responses on contraceptive safety may reflect not only how safe a method is perceived to be, but also the degree of protection it is thought to provide against sexually transmitted diseases, including the human immunodeficiency virus. Additionally, some respondents may have confused safety with effectiveness, believing that an increased risk of pregnancy associated with use of a less effective method makes the method "unsafe" for the user.

Men and women in all three countries cite health care professionals as the source on which they rely most for information about contraception. Nevertheless, only slightly more than half have ever discussed this topic with a health care professional. Clearly, health professionals can help meet a need for information in each of these countries. At the same time, however, the other sources of information identified by our survey can also work to improve public knowledge.

A country's rate of unplanned pregnancy is the result of complex interplay among numerous factors. Our findings suggest that underlying attitudes about contraception and unplanned pregnancy may both result from and affect contraceptive behavior. For example, Americans' views about the cost and problems of obtaining contraceptives and distrust of the safety and effectiveness of leading methods may help explain why unplanned pregnancy is more common in the United States than in Canada or the Netherlands. Variations among these countries' unplanned pregnancy rates may also result from differences in health care systems, levels of funding for family planning services, public education and information, and political climate and culture.

Although much more can be learned about the determinants of unplanned pregnancy, and despite the inherent difficulties in comparing findings across countries, the results of these surveys suggest an interaction between a nation's unplanned pregnancy rate and its population's access to and underlying perceptions about contraception.

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