

FAMILY PLANNING AND LIFE PLANNING Reproductive Intentions Among Individuals Seeking Reproductive Health Care

Diana G. Foster, PhD*, M. Antonia Biggs, PhD, Lauren J. Ralph, MPH, Abigail Arons,
and Claire D. Brindis, DrPH

Bixby Center for Reproductive Health Research and Policy, University of California at San Francisco, San Francisco, California

Received 3 December 2007; accepted 27 February 2008

Background. Little research has focused on men and women's reproductive intentions before pregnancy and their perceived personal and social motivations to prevent an unintended pregnancy.

Methods. To assess the reproductive intentions of low-income men and women in California, we asked individuals seeking reproductive health services about their plans for childbearing, including an ideal timeframe and perceived advantages of delay. We also asked about their health care visit to examine how contraceptive use and services relate to reproductive intentions.

Results. The majority (77%) of the 1,409 reproductive health clients surveyed wanted to have a/another child, but hoped to delay childbearing by an average of 5.4 years. The most common reasons for wanting to delay pregnancy were related to finances (24%) or education (19%), with differences by race/ethnicity and gender. We did not observe a clear relationship between the length of time the client wanted to delay pregnancy and the type of contraceptive method dispensed during the clinic visit.

Conclusions. Individuals seeking reproductive health care perceive many personal benefits to planning and timing their pregnancies, and most will need many years of contraceptive protection to achieve their reproductive goals. Providers should work with their patients to ensure that they receive a contraceptive method that is consistent with the length of pregnancy prevention they desire.

Introduction

Unintended pregnancy is a common experience for women in the United States. In 2001, nearly half of all pregnancies were unintended, with large differences by age, income, and race/ethnicity (Finer & Henshaw, 2006). Women with unintended pregnan-

cies are disproportionately single, poor, and/or at the beginning or end of their reproductive years, characteristics that are associated with negative birth outcomes for both mother and child (Brown & Eisenberg, 1995). Women who live in poverty and who have unintended pregnancies are at increased risk for delaying prenatal care and have higher rates for smoking, drinking, and other substance abuse, which can adversely impact birth outcomes (Baydar, 1995; Brave-man, Marchi, Egerter, Pearl, & Neuhaus, 2000). Teenagers, who experience the highest rates of unintended pregnancy, are more likely to have high-risk births, drop out of school, be single parents, and are substantially more prone to live in poverty than teenagers who avoid pregnancy (Finer & Henshaw, 2006; Gilbert, Jandial, Field, Bigelow, & Danielson, 2004; Hotz,

This study was supported by contract #05-45122 from the State of California, Department of Public Health, Office of Family Planning. All analyses, interpretations, or conclusions reached are those of UCSF, not the State of California.

* Correspondence to: Diana G. Foster, Bixby Center for Reproductive Health Research and Policy, University of California at San Francisco, SFGH Building 10, Ward 12, Room 1222, 1001 Potrero Avenue, San Francisco, CA 94110.

E-mail: greend@obgyn.ucsf.edu.

McElroy, & Sanders, 1997). Even among women with supportive families and adequate financial resources, unintended pregnancy can have life-altering consequences.

The burden of unintended pregnancy also falls on government programs. The public cost of health care and social services that follow from unintended pregnancy is large, particularly for teenage mothers. Numerous studies have documented that the health care and social service costs associated with an unintended pregnancy far exceed the costs of preventing them (Amaral et al., 2007; Maynard, 1997). Less frequently studied than the health consequences or public cost of unintended pregnancy are the personal and social benefits of preventing such pregnancies, including enabling couples to form stable partnerships, plan families, and/or pursue educational and professional development. These personal and social benefits are difficult to measure, but are likely the driving motivation for women and their partners to seek family planning services, adopt a contraceptive method, and choose abortion if an unintended pregnancy occurs.

Understanding women and men's reproductive intentions—specifically how long they will be at risk of pregnancy but want to avoid childbearing—is critical in estimating the need for family planning services. Between age at first intercourse and age of menopause, women may spend 3 decades trying to avoid an unintended pregnancy. Findings from the 2002 National Survey of Family Growth demonstrate that over half of all births to women <20 years of age occurred before the woman was ready and 35% of these births are ≥ 3 years “too soon” (Abma, Martinez, Mosher, & Dawson, 2004). Among women and men between the ages of 15 and 44 who had recently given birth, almost a third of births were not intended at the time of conception (Martinez, Chandra, Abma, Jones, & Mosher, 2004).

Research on reproductive intentions has primarily focused on the reasons why pregnant women choose to give birth or opt for abortion, the factors that influence this decision, and the determinants of whether a pregnancy was intended (Finer, Frohworth, Dauphinee, Singh, & Moore, 2005; Frost & Oslak, 1999; Zabin, Huggins, Emerson, & Cullins, 2000). However, there has been little investigation into the pregnancy intentions among women before conception, specifically among those who are seeking reproductive health care. In addition, there is little research on the reproductive intentions of men, despite the fact that men often play a large role in contraceptive and pregnancy decisions (Grady, Tanfer, Billy, & Lincoln-Hansen, 1996; Santelli et al., 1996).

In this paper, we examined the reproductive intentions of individuals seeking reproductive health care and how these intentions differed by age, gender, parity, educational attainment, and marital status.

Through these questions, we were able to determine the extent of voluntary childlessness and the timing of desired pregnancy among men and women, as well as teenagers. We also explored the role that avoiding unintended pregnancy plays in the pursuit of other life goals, such as finding stable partners, continuing education, and securing employment. Finally, we examined whether the contraceptive services that clients receive are consistent with their reproductive intentions, specifically whether the type of method dispensed during the family planning visit provides the short- or long-term pregnancy prevention desired.

Methods

The study population was composed of clients in the state-administered California Family Planning, Access, Care and Treatment (Family PACT) Program. Family PACT provides contraceptive and reproductive health services to >1.5 million women and men each year. Eligibility for Family PACT includes all women, men, and adolescents residing in California with incomes $\leq 200\%$ of the Federal Poverty Level and who have no other source of confidential family planning health care coverage. There are currently >2,000 health clinics and doctors' offices throughout the state providing services through Family PACT.

Seventy-nine Family PACT providers in 13 counties were randomly selected to be recruiting sites for this study between December 2003 and March 2004. The 13 counties represented a cross-section of rural and urban, and northern, southern, and central California. The sampling frame excluded providers who saw <10 Family PACT clients per day. Of the 79 selected providers, 68 (86%) participated in the study. Of the 11 providers who were not in the final sample, nonparticipation was due to 1) an inability to locate the provider; 2) the provider only offering laboratory or other ancillary services; or 3) the provider was no longer seeing Family PACT clients. None refused to participate.

Twelve female bilingual interviewers were recruited and trained to conduct interviews in both English and Spanish. Each interviewer posted a sign onsite at selected providers to solicit participation in the survey. At most sites, clinic staff also helped to recruit participants as clients checked in or out for their appointment. Based on current client age and gender distributions in the program as a whole, specific female, male, adult, and adolescent sample size targets were set for the study. These targets—20% for men and 33% for teenagers—were set to allow for age and gender comparisons. All Family PACT clients who received services on a scheduled interview day were eligible to participate in the study. Services could include contraceptive services, including provision of

barrier methods, sexually transmitted infection (STI) testing and treatment, education and counseling, and/or sterilization. As gender and age targets were met for the study overall, some participants, primarily adult females, were no longer invited to complete the interview. Clients were given a \$15 gift upon completion of the interview. The average interview length was 13 minutes (range, 5–45 minutes).

The interview was performed as part of the Family PACT evaluation by the Public Health Institute. Clients participating in the study received an information sheet approved by the UCSF Committee for Human Research and the Public Health Institute's Institutional Review Board. The sheet detailed the risks and benefits to study participants, and provided research staff contact information. No personal identifiers were collected from clients and interviews were completely anonymous and confidential.

The interview tool consisted of 103 items covering topics such as pregnancy and birth history, contraceptive and STI services, STI risk behaviors, satisfaction with health care, general health indicators, and referrals. The tool was composed primarily of close-ended questions with a set of defined answers, from which the interviewee was asked to choose 1 response, and a limited number of open-ended questions. The interviewers were instructed to read the questions aloud and to record respondents' answers. This paper focuses on a subset of the interview questions related to reproductive intentions, specifically whether respondents wanted more children and, if applicable, their reasons for wanting to delay pregnancy.

Individual's reproductive intentions were classified into 6 categories (wanting no more children, currently pregnant/seeking pregnancy, or wanting to delay pregnancy 1–5 years, 5–10 years, or >10 years, or unsure) based on their responses to 2 close-ended questions: 1) Are you planning to have (a/another) child in the future? and 2) When would you like to have a baby? For individuals who wanted to delay pregnancy, one open-ended question—"What is the main reason you do not want to have a baby right now?"—followed. The responses to this question were recorded and later coded by the interviewer into 19 categories reflecting reasons individuals might want to postpone or prevent pregnancy.

We used analysis of variance (ANOVA) to test the significance of demographic characteristics associated with reproductive intentions and multivariate logistic regression models to determine the variables predictive of 1 particular outcome, wanting no more children. Our independent variables of interest included age, gender, race/ethnicity, parity, and relationship status.

Finally, we looked at the relationship between responses to a question that asked respondents to identify the contraceptive method that they planned to use

after their Family PACT visit and that respondents stated reproductive intentions, to determine whether individuals with intentions to delay childbearing for longer periods of time used contraceptive methods that would provide them with that long-term pregnancy prevention. We restricted this analysis to female clients because there are no long-term reversible methods available for men and very few men reported the methods their partners were using. In the absence of data on the demographic makeup of the clinic sites, we did not weight the responses to reflect oversampling of males or teenagers. However, we present our results separately by these demographic variables.

Results

Sample Characteristics

A stratified sample of 1,409 clients at the 68 participating providers responded to the exit interview upon completion of their Family PACT visit. Response rates were high; 97% of male clients and 93% of female clients agreed to participate. Close to half of the interviews (48%) were conducted at Planned Parenthood clinics, followed by neighborhood primary care clinics (23%), county clinics (14%), and private doctors' offices (14%). Overall, 75% of the study respondents were clients of public or nonprofit providers and 25% were seen by private providers.

Table 1 shows the distribution of respondent characteristics. Thirty-two percent of the sample was <20 years old; 15% were male and 85% were female. Over half (53%) of respondents were Latino, 27% were White, 7% were African American, and 13% were Asian, Pacific Islander, Filipino, American Indian, or another race not listed. Regarding marital status, 58% of the respondents reported being single and in a relationship, 20% were married, and 17% were single and not in a relationship. Three fifths (60%) of male and female respondents had never given birth, 16% had 1 birth, and 12% had ≥ 3 births. The client exit interview had more males and adolescents and fewer Latinos than the Family PACT Program as a whole, which had 11% males, 20% adolescents, and 65% Latinos (Bixby Center for Reproductive Health Research and Policy, 2005). These differences are due to deliberate oversampling of males and adolescents. The underrepresentation of Latinos may be a function of the location of recruitment sites and oversampling of adolescents who are less likely to be Latino than older clients.

Reproductive Intentions

We found differences in the desired timing of childbearing by demographic characteristics. Table 2 shows the distribution of reproductive intentions by demographic characteristics where *p*-values indicate signif-

Table 1. Percent distribution of family planning clients by age, gender, race/ethnicity, and other family and demographic characteristics^a

	Female (%)	Male (%)	Latino (%)	White (%)	African American (%)	Other (%)	Total (%)
Age (yrs)							
13–19	33	23	24	41	32	45	32
20–29	48	50	48	49	49	45	48
30–39	16	21	24	9	14	7	17
40–44	3	6	4	1	6	2	3
Parity							
0	59	64	39	87	66	86	60
1	17	14	23%	8	12	8	16
2	12	10	18	3	13	5	12
≥3	12	11	20	2	8	1	12
Marital status							
Single, no partner	14	32	12	22	27	20	17
Single with partner	60	45	51	66	60	65	58
Married	21	14	32	6	5	8	20
Separated/widowed/divorced	5	9	6	5	7	6	6
Race/ethnicity							
Hispanic	53	55					53
White	28	21					27
African American	5	17					7
Other	14	7					13
Total	100	100	100	100	100	100	100
<i>n</i>	1,195	214	746	375	101	187	1409

^aAll cross-tabulations show significant differences using a χ^2 test with $p < .05$, except parity by gender.

icance in the ANOVA test. There were clear patterns of reproductive intentions by age, with older clients more likely to want no more children. More than half of the clients in their 30s and more than 4 out of 5 clients in their 40s wanted no more/no children. Among those seeking to delay rather than prevent pregnancy, younger clients wanted to wait longer to have a pregnancy than older clients. Teenaged clients wanted to wait an average of 7.1 years compared with 2.4 years among clients in their 30s. Six percent of the teenaged clients ($n = 27$) were pregnant at the time of the interview. For these pregnant teenagers, we do not know whether the pregnancy was intended. Of the remaining nonpregnant teens, 5% ($n = 22$) reported that they wanted to become pregnant while still in their teen years (data not shown).

More white clients were seeking to delay pregnancy than Latino or African American clients (79% compared with 52% and 56%, respectively). In contrast, Latino and African American clients tended to either want no more children (33% among Latinos and 21% among African Americans compared with 11% of whites) or be currently pregnant or seeking pregnancy (9% among Latinos, 12% among African American clients, and 3% among White clients).

Many clients (40%) already had children. Among those with children, approximately half reported that they did not want any more children and the other half were seeking to wait an average of 3 years until their next pregnancy. Most clients who did not already have children were seeking to delay childbear-

ing; however, 8% reported that they did not intend to ever have a child. Clients who were seeking to delay their first birth will need an average of 6.2 years of pregnancy prevention to achieve their goal.

Predictors of Wanting No More/No Children

Taken together in a logistic regression model, we identified the factors that were associated with wanting no more children (Table 3). Age and parity showed the expected trends, with older women and women with higher parity more likely to not want more children than younger and lower parity women. Men were 70% more likely than women to not want any more children. Partnered and married women were half as likely as single women to report that they did not want any more children. After controlling for age, parity, gender, and marital status, we found no difference by race/ethnicity in the likelihood of wanting no more children.

Reasons for Postponing or Preventing Births

When asked to provide the primary reason they would like to prevent or postpone pregnancy, participants gave diverse responses. The most common were financial reasons. Nearly 1 in 4 (24%) said that they could not afford a/another child at the time of their family planning visit. Almost 1 in 5 (19%) said they wanted to pursue their education before having a/another pregnancy. One in 10 said they felt they were too young to have a child and another 1 in 10 said they did not want any/any more children. Al-

Table 2. Reproductive intentions of family planning clients by select demographic characteristics

	Respondents' Desired Wait Time Until A/nother Pregnancy						Total	<i>p</i> Value	Average Desired Wait Time (yrs) ^a	<i>n</i>
	Currently Pregnant/ Seeking Pregnancy	1–5 yrs	5–10 yrs	≥10 yrs	No More Children	Unsure				
Total (%)	8	32	23	7	23	7	100		5.4	1,409
Age (yrs)										
13–19	8	23	41	17	6	6	100	Reference	7.1	450
20–29	7	43	21	3	20	7	100	0.000	4.7	674
30–39	9	25	2	0	55	8	100	0.000	2.4	239
40–44	2	7	0	0	83	9	100	0.000	1.5	46
Gender										
Female	7	33	25	6	22	6	100	Reference	5.4	1,195
Male	7	27	17	9	31	9	100	0.000	5.4	214
Race/ethnicity										
Latino	9	34	13	5	33	6	100	0.000	4.5	746
White	3	32	37	10	11	7	100	Reference	6.3	375
African American	12	29	23	4	21	12	100	0.005	5.0	101
Other	5	27	38	11	12	8	100	0.649	6.7	186
Parity										
0	7	32	35	11	8	6	100	0.000	6.2	842
1	11	47	9	1	24	7	100	0.000	3.4	229
2	8	31	5	0	46	12	100	0.000	3.2	169
≥3	4	13	1	0	78	5	100	Reference	2.7	165
Marital status										
Single, no partner	4	23	32	11	21	9	100	Reference	6.7	235
Single, w/partner	8	35	29	8	13	6	100	0.001	5.7	811
Married	9	33	4	0	47	7	100	0.000	2.8	279
Separated/divorced/widowed	5	22	6	3	54	10	100	0.000	4.0	78

^aExcludes those who were currently pregnant/seeking pregnancy and those who do not want more children.

Table 3. Odds ratios predicting the likelihood of wanting no/no more children by family planning clients' demographic characteristics ($n = 1,399$)

	Odds Ratio	p-Value
Age (yrs)		
13–19	Reference	
20–29	1.61	.05
30–39	3.42	.00
40–44	13.26	.00
Race/ethnicity		
Latino	1.41	.14
White	Reference	
African American	0.84	.65
Other	1.19	.58
Gender		
Female	Reference	
Male	1.70	.02
Parity		
0	Reference	
1	2.88	.00
2	6.25	.00
≥3	20.79	.00
Marital status		
Single, no partner	Reference	
Single with partner	0.38	.00
Married	0.49	.01
Separated/widowed/divorced	0.83	.59

most 8% gave reasons that had to do with their relationships—4% wanted to get married first, 3% wanted to find the right partner, and 1% said that their partner was not ready for a baby. Six percent of respondents felt that they were not ready to be a parent and wanted to delay pregnancy until they felt they could be personally responsible for a/another child.

Differences in the reasons for wanting to delay or prevent childbearing were evident by racial/ethnic group, gender, parity, and marital status (Table 4). With regard to racial/ethnic group, a larger proportion of whites than Latinos indicated that they did not want to become pregnant to stay in school (23% vs. 14%) or because they were too young (18% vs. 8%). A larger proportion of Latinos, in contrast, reported that they had all the kids they wanted (16% vs. 4%) or that they just had a baby (9% vs. 1%). Men more often gave financial reasons for delaying a pregnancy (33% compared with 23% among women), whereas women more commonly noted that they wanted to delay pregnancy to achieve educational goals (21% vs. 8%).

The reasons for delaying childbearing differed between those with no children and those with ≥1 child. A larger proportion of both childless clients and younger women gave educational goals and the feeling that they were too young as the reasons for wanting to delay a birth. Married clients gave reasons that differed from those of other clients, whether single or partnered. Married clients commonly reported that they had financial reasons for delaying

childbearing (28%) rather than giving reasons relating to age or educational goals.

Contraceptive Use and Reproductive Intentions

The contraceptive methods that women adopted had little relation to their stated reproductive intentions (Table 5). A larger proportion of women who wanted to wait ≥2 years before having a birth adopted an injectable method. On the other hand, women who wanted to have a child within the next 2 years more often reported using a shorter term hormonal method like the pill or patch, or a low-efficacy method such as withdrawal or periodic abstinence. With regard to most other contraceptive methods—including barrier methods and long-term methods such as sterilization, Norplant, and intrauterine contraception—we did not see any clear pattern in their relationship to women's stated reproductive intentions.

Discussion

This study confirms the need for family planning services among the low-income population of California. Although most men and women surveyed planned to have a/another child, they will need an average of 5.4 years of contraceptive protection to achieve this goal. In addition, a significant minority (23%) of clients surveyed had already achieved their desired family size and will therefore need long-term pregnancy prevention. Family planning providers must work with their clients to find a contraceptive method that is aligned with their patient's reproductive intention, taking into account contraceptive failure rates and their patient's likely adherence to a given method. The difficulty in finding a method may be a result of the conflict between the need for long-term contraceptive protection and the need for protection from STIs that many individuals face. Young clients are often at high risk of acquiring an STI (Weinstock, Berman, & Cates, 2004). In this study, young clients had the longest desired waiting time for pregnancy, yet they tended to rely on shorter term methods, such as condoms. Condoms, which prevent transmission of STIs, have higher failure and discontinuation rates than longer term methods (Trussell & Vaughan, 1999). Intrauterine contraceptives, which have very low failure rates, could help couples to achieve their desired wait time to a birth but, contrary to current clinical recommendations, are still not typically provided to nulliparous women, perhaps because they provide no STI/HIV prevention (Harper et al., 2007; Prager & Darney, 2006; Suhonen, Haukka-maa, Jakobsson, & Rauramo, 2004).

This study adds another dimension to our understanding of the need for family planning services, complementing previous research that has focused on

Table 4. Percent distribution of responses given by family planning clients regarding their primary reason for postponing or preventing pregnancy by select demographic characteristics^a

	Financial	To Achieve Educational Goals	Too Young	Has Reached Ideal Family Size	Concerns About Partner	Concerns About Being a Parent	Just Had a Baby	To Focus on Career Goals	To Focus on Personal Interests	Too Old	Health- Related Concerns	Other	Total	N
Total (%)	24	19	11	11	8	6	5	5	3	2	2	4	100	1,320
Race/ethnicity ^b														
Latino	23	14	8	16	7	5	9	5	2	3	3	5	100	686
White	25	23	18	4	9	10	1	3	2	2	1	3	100	364
African American	37	23	9	7	8	3	1	3	2	1	1	4	100	90
Other	22	27	13	6	9	7	1	6	5	2	1	2	100	179
Gender ^b														
Female	23	21	11	11	7	7	6	4	3	3	2	3	100	1,114
Male	33	8	10	14	12	3	2	8	2	1	2	5	100	205
Parity ^b														
0	22	27	18	3	9	9	0	5	3	1	2	2	100	787
1	28	14	2	8	10	6	13	5	1	3	3	6	100	208
2	28	4	0	24	4	3	16	7	1	4	3	8	100	159
≥3	24	1	0	43	6	1	9	1	1	8	4	3	100	162
Age (yrs) ^b														
13–19	15	33	28	2	3	10	1	4	2	0	0	2	100	417
20–29	30	17	5	9	10	6	8	6	3	0	3	4	100	634
30–39	27	2	0	27	12	2	6	5	3	8	4	5	100	222
40–44	15	0	0	37	9	2	0	2	0	26	2	7	100	46
Marital status ^b														
Single, no partner	21	19	15	7	11	8	1	5	4	1	2	5	100	228
Single with partner	24	24	15	6	7	7	4	5	2	1	2	3	100	753
Married	28	7	0	26	4	4	12	3	2	4	4	6	100	255
Separated, divorced, widowed	21	8	4	27	18	1	1	3	0	13	3	1	100	77

^aThis analysis excludes women who are currently pregnant or seeking pregnancy.^bDifference significant using the χ^2 test with $p < .05$.

Table 5. Contraceptive intent and use following a family planning visit by reproductive intention for female family planning clients

	Desired Timing Until Next Child			Total
	<2 yrs	≥2 yrs	Never	
Contraceptive method dispensed/plans to use (%)				
None/withdrawal/periodic abstinence	5	3	2	3
Barrier methods	24	32	29	31
OCs/patch/ring	56	49	45	49
Injectables	10	14	18	14
Sterilization/IUD/Norplant	5	2	6	3
Total (%)	100	100	100	100
<i>n</i>	82	688	262	1032

Pearson χ^2 (8) = 22.4641; p = .004.

This analysis excludes women who are currently pregnant or seeking pregnancy.

Abbreviations: IUD, intrauterine device; OC, oral contraceptive.

the health and financial benefits of helping individuals to plan their pregnancies. In addition to improving health outcomes for mother and child and saving health care resources, assisting individuals in timing and spacing pregnancies according to their intentions may also enable them to achieve financial and relationship stability, educational goals, and improve their readiness for childbearing. Although most research focuses on the pregnancy intentions of females, this study demonstrates that delaying childbearing is also the intent of most male clients seeking reproductive health services, and that men have diverse reasons for wanting to postpone childbearing.

The diversity of California's Family PACT client population allows us to explore differences in reproductive intention by important demographic characteristics. After controlling for age, parity, gender, and marital status, we find no difference by race/ethnicity in the likelihood of wanting no more children. However, there are differences in the reasons respondents give for wanting to postpone childbearing by race/ethnicity. Although financial concerns represent one of the most common reasons for postponing childbearing among all respondents, they are particularly evident among African Americans and males. On the other hand, Latino men and women less often cite a desire to achieve educational goals as a reason to delay childbearing. These differences provide insight on the perceived role and impact of childbearing on low-income individuals, and can provide direction on educational and counseling strategies that providers and policymakers can address in their multidimensional efforts to reduce unintended pregnancy.

Several limitations of this study must be considered when interpreting these results. First, because our study sample is drawn from clinics and physician offices, our respondents are presumably motivated to prevent or space pregnancies. Had we looked at a larger, non-clinic-based sample, the motivation to prevent pregnancy or reasons for delay might be different. Certainly, contraceptive use patterns would have been different among a non-clinic-based sample. In addition, our study sample is primarily low income. Finally, we asked respondents about their reproductive intention and primary motivation to prevent or postpone pregnancy at a single point in time, recognizing that these emotions are not static and will likely change over time in response to other life events. Although the predictive value of pregnancy intention is not perfect, research confirms that in particular in the short term, it is a good proxy for behavior (Santelli et al., 2003).

This is the first published study that we are aware of to ask open-ended questions about ideal timeframes for childbearing and reasons for delaying pregnancy at the reproductive health clinic. It is also the first to ask both women and men about their reproductive intentions before they conceive, and therefore may yield more reliable data than asking couples about the intendedness of a child who has already been conceived or born. Further, both dimensions of pregnancy intendedness, namely wantedness and timing, are captured in the measures used for this study.

The question of pregnancy intentions is complex. Many women acknowledge that an unplanned pregnancy may not necessarily be unwanted—that current life circumstances, including relationship and financial stability are important factors influencing whether a pregnancy is wanted, apart from the question of whether it was planned (Lifflander, Gaydos, & Hogue, 2007). Nevertheless, giving women access to contraceptive methods to prevent unwanted pregnancies can improve the lives of women, men, and children.

The determination to prevent unintended pregnancy and achieve other life goals is clear among low-income women and men seeking reproductive health care in California. This study builds on the valuable demographic information available on California's family planning program. Documenting the personal and social benefits of a statewide family planning program may provide the data other states need to transcend the political and economic barriers to providing services and make family planning services available to all women and men in need.

Acknowledgments

The authors would like to thank Sue Holtby, Christy McCain and Nicole Lordi at the Public Health Institute for conduct-

ing the client exit interview and for their assistance in describing study protocols.

References

- Abma, J. C., Martinez, G. M., Mosher, W. D., & Dawson, B. S. (2004). Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2002. National Center for Health Statistics. *Vital Health Statistics*, 23 (24).
- Amaral, G., Foster, D. G., Biggs, M. A., Jasik, C., Judd, S., & Brindis, C. D. (2007). Public savings from the prevention of unintended pregnancy: A cost analysis of family planning services in California. *Health Services Research*, 42, 1960–1980.
- Baydar, N. (1995). Consequences for children of their birth planning status. *Family Planning Perspectives*, 27, 228–234.
- Bixby Center for Reproductive Health Research and Policy. (2005). Family PACT Program Report Fiscal Year 04/05. A report to the State of California Department of Health Services Office of Family Planning. Available: www.familypact.org. Accessed June 26, 2007.
- Braveman, P., Marchi, K., Egerter, S., Pearl, M., & Neuhaus, J. (2000). Barriers to timely prenatal care among women with insurance: The importance of pre-pregnancy factors. *Obstetrics & Gynecology*, 95, 874–880.
- Brown, S., & Eisenberg, L. (Eds.). (1995). *The best intentions: Unintended pregnancy and the well-being of children and families*. Washington, DC: National Academy Press.
- Finer, L. B., Frohworth, L. F., Dauphinee, L. A., Singh, S., & Moore, A. M. (2005). Reasons U.S. women have abortions: Quantitative and qualitative perspectives. *Perspectives on Sexual and Reproductive Health*, 37, 110–8.
- Finer, L., & Henshaw, S. (2006). Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspectives on Sexual and Reproductive Health*, 38, 90–96.
- Frost, J. J., & Oslak, S. (1999). *Teenagers' pregnancy intentions and decisions: A study of young women in California choosing to give birth* [Occasional Report No. 2]. New York: The Alan Guttmacher Institute.
- Gilbert, W., Jandial, D., Field, N., Bigelow, P., & Danielson, B. (2004). Birth outcomes in teenage pregnancies. *Journal of Maternal Fetal Neonatal Medicine*, 16, 265–270.
- Grady, W., Tanfer, K., Billy, J., & Lincoln-Hansen, J. (1996). Men's perceptions of their roles and responsibilities regarding sex, contraception, and childrearing. *Family Planning Perspectives*, 28(5), 221–226.
- Harper, C., Blum, M., Thiel de Bocanegra, H., Darney, P. D., Speidel, J. J., Policar, M., et al. Challenges in translating evidence to clinical practice: Intrauterine contraception in California. Presented at the November 2007 APHA annual meeting, Washington DC.
- Hotz, V., McElroy, S., & Sanders, S. (1997). The impact of teenage childbearing on the mothers and the consequences of those impacts for government. In R. Maynard (Ed.), *Kids having kids* (pp. 55–94). Washington, DC: The Urban Institute Press.
- Lifflander, A., Gaydos, L. M., & Hogue, C. J. (2007). Circumstances of pregnancy: Low income women in Georgia describe the difference between planned and unplanned pregnancies. *Maternal and Child Health Journal*, 11, 81–89.
- Martinez, G., Chandra, A., Abma, J., Jones, J., & Mosher W. D. (2004). Fertility, contraception, and fatherhood: Data on men and women from Cycle 6 of the 2002 National Survey of Family Growth. National Center for Health Statistics. *Vital Health Statistics*, 23 (26).
- Maynard R., editor. (1997). *Kids having kids*. Washington, DC: The Urban Institute Press.
- Prager, S., & Darney, P. (2006). The levonorgestrel intrauterine system in nulliparous women. *Contraception*, 75, S12–S15.
- Santelli, J., Kouzis, A., Hoover, D., Polacsek, M., Burwell, L., & Celentano, D. (1996). Stage of behavior change for condom use: The influence of partner type, relationship and pregnancy factors. *Family Planning Perspectives*, 28, 101–107.
- Santelli, J., Rochat, R., Hatfield-Timajchy, K., Gilbert, B. C., Curtis, K., Cabral, R., et al. (2003). The measurement and meaning of unintended pregnancy. *Perspectives on Sexual and Reproductive Health*, 35, 94–101.
- Suhonen, S., Haukamaa, M., Jakobsson, T., & Rauramo, I. (2004). Clinical performance of a levonorgestrel-releasing intrauterine system and oral contraceptives in young nulliparous women: A comparative study. *Contraception*, 69, 407–412.
- Trussell, J., & Vaughan, B. (1999). Contraceptive failure, method-related discontinuation and resumption of use: Results from the 1995 National Survey of Family Growth. *Family Planning Perspectives*, 31, 64–72.
- Weinstock, H., Berman, S., & Cates, W. (2004). Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. *Perspectives on Sexual and Reproductive Health*, 36, 6–10.
- Zabin, L. S., Huggins, G. R., Emerson, M. R., & Cullins, V. E. (2000). Partner effects on a woman's intention to conceive: "Not with this partner". *Family Planning Perspectives*, 32, 39–45.

Author Descriptions

Diana Greene Foster, PhD, is Assistant Professor of Obstetrics, Gynecology & Reproductive Sciences and Director of Research of Advancing New Standards in Reproductive Health at the University of California, San Francisco. She is a demographer who uses quantitative models and analyses to evaluate the effectiveness of contraceptives and family planning policies and the effect of unintended pregnancy on women's lives.

M. Antonia Biggs, PhD, is a Project Director at the Bixby Center for Reproductive Health Research and Policy at the University of California, San Francisco. Her research focuses on ethnic disparities and program evaluation in the area of reproductive health.

Lauren J. Ralph, MPH, is a Research Associate at the Bixby Center for Reproductive Health Research and Policy at the University of California, San Francisco. Her research focuses on the factors influencing access to family planning services and contraceptive use among adolescents and women in California and nationally.

Abigail Arons is a Master's student at the Johns Hopkins Bloomberg School of Public Health. Her research focuses on adolescent pregnancy and racial/ethnic disparities in reproductive health.

Claire D. Brindis, DrPH, MPH, is a Professor in the Department of Pediatrics, Division of Adolescent Medicine and the Department of Obstetrics, Gynecology and Reproductive Sciences and is Interim Director of the Philip R. Lee Institute for Health Policy Studies at the University of California, San Francisco. Her research interests focus on adolescent and child health policy and women's health.