TAKE CHARGE
Final Evaluation

Three-Year Renewal: July 2006 – June 2009

A Study of Recently Pregnant Women

Washington State Department of Social and Health Services
Planning, Performance and Accountablity Administration
Research and Data Analysis Division
Health and Recovery Services Administration

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A Study of Recently Pregnant Medicaid Women

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September 2009

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REPORT 9.92

ACKNOWLEDGMENTS

This report was prepared for and funded by the Health and Recovery Services Administration, Department of Social and Health Services (DSHS).

We are deeply grateful to all research participants for sharing their personal information with us. We also appreciate the efforts of all the TAKE CHARGE research providers for collecting survey information from Program G clients during the first five years of the waiver.

Special thanks go to the members of the First Steps Database team: Trisha Keenan-Wilkie assisted with the questionnaire design, WSIRB application, and comments on drafts; Dorothy Lyons extracted the survey sample and provided comments on drafts; Craig Woodworth updated survey sample contact information; Peter Woodcox assisted with the unduplication and matching of client records with services data and provided SAS expertise; and Elise Dike provided editing and proofreading of drafts. Previous project directors, Barbara Baker, Amy Ritualo, Can Du, and Wade Cole, and previous research analyst Linda Weaver also contributed to this report.

Thanks to Elizabeth Kohlenberg, Ph.D., Director of Research and Data Analysis Division, DSHS, for oversight and overall project management, and to MaryAnne Lindeblad, Director of the Division of Healthcare Services, HRSA, for helpful guidance.

We would like to recognize and thank the TAKE CHARGE program staff, Dr. Nancy Anderson, Todd Slettvet, and Maureen Considine, for reviewing the report and offering insightful suggestions.

Our gratitude extends to prior TAKE CHARGE program staff of the Health and Recovery Services Administration, DSHS, including Diana Larsen-Mills, Beth Brenner, and Claudia Lewis, whose collective vision shaped the program, and Bobbe Anderson for her keen organizational skills. Many thanks go to Dan Conlon of the Health and Recovery Services Administration who prepares the quarterly TAKE CHARGE eligibles reports. Special thanks go to Gary Coats, also from the Health and Recovery Services Administration, who generates the quarterly lists of TAKE CHARGE eligible clients.

The First Steps Database would not exist without the contributions of the Center for Health Statistics, Department of Health, which provides birth certificate files, and the Health and Recovery Services Administration, DSHS, which provides Medicaid claims data.

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EXECUTIVE SUMMARY

Washington State's TAKE CHARGE program, which began July 2001, expands Medicaid coverage for family planning services to men and women with family incomes at or below 200% of the federal poverty level (FPL). Program goals are to improve the health of women, children, and families in Washington by decreasing unintended pregnancies and lengthening intervals between births, and to reduce state and federal Medicaid expenditures for births from unintended pregnancies. The Department of Social and Health Services (DSHS) Health and Recovery Services Administration (HRSA) administers this program.

This report for the three-year renewal period July 1, 2006, to June 30, 2009, presents findings of a survey of 1292 women with Medicaid coverage for maternity care who gave birth in 2005. The survey explored reasons for the low family planning service use rate of recently pregnant Medicaid women and the low re-enrollment rate at the end of their automatic extension for family planning services.

The TAKE CHARGE family planning demonstration includes two groups of clients:

- Men and women with family incomes at or below 200% of the FPL, seeking to prevent unintended pregnancy (Program G); and
- Recently pregnant women who would otherwise lose Medicaid coverage after their maternity coverage ends (Program S).

Recently pregnant women who were Medicaid eligible solely because of pregnancy (S women) comprised 44.4% of total Medicaid deliveries (N=41,392) in Washington in 2007. While the proportion of births from unintended pregnancies among S women decreased from 56.3% in 2000 – 02 to 47.9% in 2003 – 05, the proportion of births from unintended pregnancies increased to 53.6% in 2006 – 07.

Compared to other Medicaid women who gave birth, S Women are higher income (with family incomes at or below 185% of the FPL) and relatively low risk for poor birth outcomes, with the highest educational attainment, and intermediate standings in smoking rates, marital status, and average age. Compared to other women enrolled in the TAKE CHARGE program, S Women had higher parity and average age, and higher rates of being married.

Key Findings

Employment History and Health Insurance Coverage. At the time of the survey, two years after the target pregnancy, the proportion of women working full-time had decreased from 41.2% to 28.9%. The proportion working part-time was essentially unchanged, and the proportion whose primary occupation was homemaker increased from 23.1% before pregnancy to 33.3% two years later.

The proportion of women without health insurance decreased from 54.1% before pregnancy to 34.0% two years later. The proportion with employer-based, military, or state-sponsored coverage increased from 33.5% to 43.6%, and Medicaid coverage increased from 12.4% to 28.4%.

For the two-year-old children, 66.7% were covered by Medicaid, 36.6% by private, state, or military health plans, and 7% were uninsured.

Knowledge of and Attitudes about Family Planning Services. The majority of survey respondents were either very aware (50.4%) or somewhat aware (25.5%) that their family planning services would be covered by Medicaid for one year after the birth of their child. Fewer women recognized the program by name. Almost half (47.1%) reported that they had not heard of the TAKE CHARGE program

Overall, 81% of women either strongly agreed or agreed that it is best to plan ahead for a pregnancy by using birth control. A very small proportion said they disagreed (1.8%) or strongly disagreed (2.0%) with the statement.

Family Planning Behavior and Pregnancy Intention. During the three months before the target pregnancy, 24.8% of women were trying to get pregnant while 16.2% were trying hard to keep from getting pregnant. Nearly 60% recalled ambivalence about pregnancy: 31% said they were not trying to get pregnant or keep from getting pregnant, and 28% were trying to keep from getting pregnant but not trying very hard.

At the time the survey respondents became pregnant with the target birth, 56.9% reported that they were not doing anything to keep from getting pregnant. The most frequently cited reasons were “I wanted to get pregnant” (42.8%) and “I didn’t mind if I got pregnant” (41.8%). Only 6.6% of the respondents reported that they were not using birth control at the time because they had problems getting it when they needed it.

S women and G women differed significantly in their future pregnancy intention. While 95.4% of G women surveyed during the first five years of the demonstration did not want or *really* did not want to get pregnant in the next twelve months, just 75.6% of S women expressed the same attitudes. More than one in ten (10.8%) S women wanted to get pregnant in the next twelve months. The proportion of married S women who wanted to get pregnant (13.3%) was more than four times greater than that for single S women (3.0%).

Effectiveness of the family planning method used at the time of the survey generally corresponded to stated pregnancy intention. The most frequent users of highly effective methods were women who did not want to get pregnant in the next twelve months (64.9%), and those who *really* did not want to get pregnant in the next twelve months (66.1%). Women who wanted to get pregnant frequently used no method (41.7%) and were infrequently abstinent (0.7%), yet 57.6% reported using some family planning method during the two months prior to the survey.

Within one year after delivery, more than half (54.4%) the survey respondents received a Medicaid-paid family planning service. Compared to women who did not receive a Medicaid family planning service, those with a family planning service were younger, had fewer years of education, had fewer prior live births, and were more frequently employed full-time. While 57.4% of single women received a family planning service, the proportion was lower among married women (52%). Among married women, receipt of family planning services decreased with increasing age while age and receipt of family planning service were unrelated among

single women. More than one-third (34.6%) of respondents who did not go to a health care provider for birth control after delivery were sterile or their partner was sterile.

After controlling for education and marital status, independent variables associated with family planning service use included: age, employment status prior to and following the target pregnancy, whether the woman was doing anything to keep from getting pregnant, not having been sterilized or having a partner who had not been sterilized, and having heard of TAKE CHARGE. Use of a TAKE CHARGE family planning service was 2.5 times higher among women who agreed that it is best to plan for pregnancy by using birth control compared to those who disagreed with that statement.

Nearly half (47.2%) the women who had no record of receiving a Medicaid-paid family planning service reported using a highly effective birth control method two years after delivery.

Subsequent Pregnancy and Birth. Within 33 months of the target pregnancy, nearly one-quarter (23.6%) of the respondents had a subsequent birth or said they were currently pregnant. Of those who reported being pregnant at the time of the survey, just over half (52.9%) were trying to get pregnant, and 47.1% said they were not trying to get pregnant.

Women who reported using highly effective methods (53.1% overall) had the lowest rate of subsequent birth or pregnancy (13.9%), and women who reported using no method (16.1%) had the highest rate of subsequent birth or pregnancy (51.2%).

In a multivariate model, the strongest risk factors for a subsequent birth or pregnancy were use of no family planning method (OR = 6.1 when compared to use of a highly effective method), excellent health status (OR = 5.0 when compared to fair or poor health status), and being a stay-at-home mom (OR = 3.2 when compared to full-time employment). Older age (mothers 30 – 34 years old at delivery) reduced the risk of a subsequent birth or pregnancy.

CONCLUSION. Survey findings highlight characteristics of potential target groups for greater use of highly effective family planning methods: single women; younger women (single or married); women who agree that it is best to plan ahead for pregnancy by using birth control methods; and women whose hopes and dreams do not include having more children.

During the time of highest enrollment in TAKE CHARGE, unintended pregnancy rates among S women declined. However, as TAKE CHARGE enrollment decreased from July 2006 through June 2009, the unintended pregnancy rates increased, to levels just below those before TAKE CHARGE. Deliveries to S women increased slightly each year from 2001 to 2005 and then began a period of more rapid increase. S women remain the single largest group of pregnant women on Medicaid, exceeding both women on TANF and Non-citizens.

Understanding the reasons for the decline in TAKE CHARGE enrollment from July 2006 through June 2009 and addressing these reasons with appropriate interventions are critical for regaining the progress that had been achieved in reducing unintended pregnancy among Medicaid women in Washington. With well-established, enhanced prenatal care services and a CSO-based family planning program, Washington is well positioned to develop targeted interventions to reach more recently pregnant women through our family planning waiver.

INTRODUCTION

Washington State's TAKE CHARGE family planning demonstration, which began in July 2001, expands Medicaid coverage for family planning services to women and men with family incomes at or below 200% of the federal poverty level (FPL). Program goals are to improve the health of women, children, and families in Washington State by reducing unintended pregnancies, lengthening the interval between births, and to decrease state and federal Medicaid expenditures for unintended births and their associated costs. TAKE CHARGE represents a change in Medicaid policy in that TAKE CHARGE provides family planning services prior to pregnancy for low-income women not otherwise Medicaid eligible and includes low-income men in its target population. The Health and Recovery Services Administration (HRSA) of the Department of Social and Health Services (DSHS) administers the program. HRSA has contracted with the DSHS Research and Data Analysis Division to conduct the evaluation.

In the first five years of the demonstration, the TAKE CHARGE program exhibited a remarkable impact on access to and provision of family planning services in Washington State. During the first few months of the program, client enrollment exceeded all expectations and continued to increase steadily until the fourth year of the demonstration. With such a large demand for program services, HRSA has invested in increasing capacity by streamlining application and billing processes and providing extensive trainings. Individual provider agencies have correspondingly increased staffing and expanded physical workspace. Furthermore, the concepts of Education, Counseling, and Risk Reduction (ECRR) are beginning to diffuse throughout the state and establish a new standard of care for family planning practice.

During its first five years, the TAKE CHARGE program increased access to family planning services and reduced unintended pregnancies among women eligible under the waiver. In particular, the program was successful in reaching younger, unmarried clients (Program G clients) who sought enrollment on their own initiative. Nearly ninety-five percent (94.9%) of these women received family planning services. However, women in the post-pregnancy extension (Program S clients), somewhat older and more likely to be married, received family planning services at a much lower rate (47.9%). (Data are based on enrollment and services during the first four years of the demonstration.) Even fewer of these women elected to re-enroll into the program after their automatic extension was complete. For the program to be more successful in achieving its goals to reduce unintended pregnancies and to lengthen the interval between births, it is important that the program effectively reach this segment of the population.

This report presents the findings of a survey of recently pregnant women (Program S clients). The survey was designed to identify the reasons for their low family planning service use rate and low re-enrollment rate in the TAKE CHARGE program after their automatic family planning extension ends.

BACKGROUND

In Washington State, in 2003 – 06, approximately 49.6 % of Medicaid deliveries represented births that were unintended at the time of conception. While unintended pregnancies are experienced by childbearing women of all ages, the majority occur to women in their twenties. For women age twenty to twenty-four, approximately 62.5% of all pregnancies are unintended.

In 2007, 47% of all deliveries to Washington State residents were funded by Medicaid. At more than $300 million per year, maternity care is one of HRSA's largest expenses. The State Legislature and program staff recognized years ago that limiting the growth in Medicaid deliveries required interventions at multiple levels:

- Increasing access to family planning services;
- Educating communities about the benefits of avoiding unintended pregnancies; and
- Changing individual and provider behavior.

A number of programs have been initiated in Washington State over the past fifteen years to accomplish this. Each program has focused on a different population, and in combination, they have targeted as broad a population as possible.

- TANF clients and potential clients receive family planning assistance and information in Community Services Offices (CSOs) across the state. In accordance with RCW 74.12.400 and 410, HRSA and the Economic Services Administration (ESA) have stationed family planning workers and nurses in most CSOs and began in the mid-1990s to co-locate clinical exam facilities in some CSOs (Campbell et al., 1999).

- Women who are Medicaid eligible solely because of pregnancy receive extended Medicaid coverage for family planning services for one full year postpartum. For these women, full-scope Medicaid coverage ends after the second postpartum month.

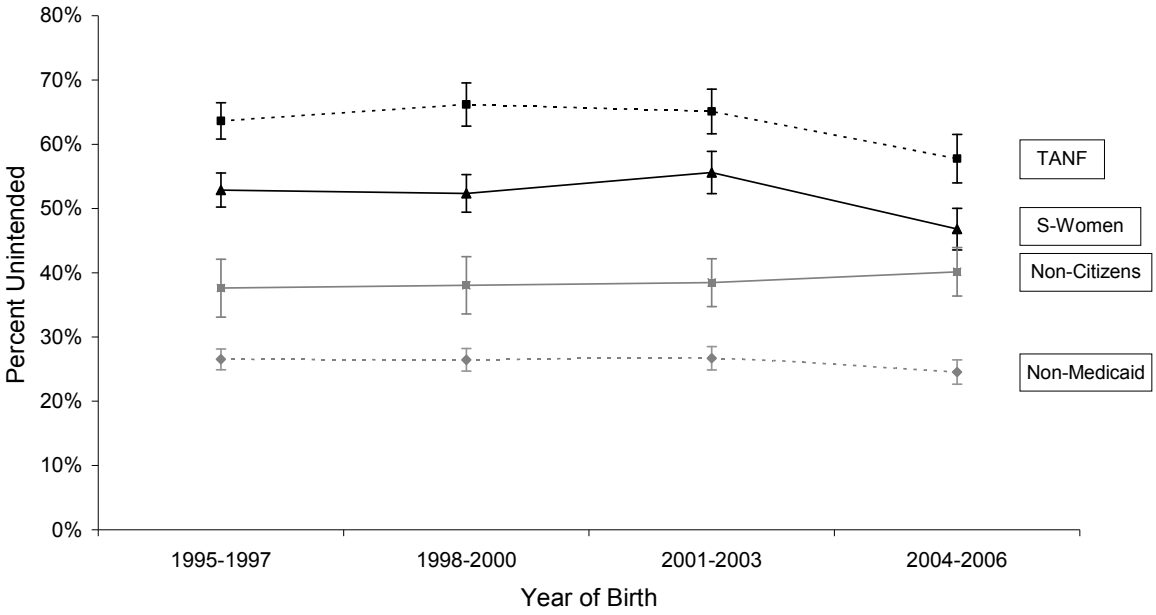
- All Medicaid eligible pregnant women and new mothers receive counseling about achieving their desired family size and assistance with family planning services. Since July 2000, Maternity Support Services providers have been responsible for discussing pregnancy planning with each client and documenting the initiation of a birth control method during the postpartum period. Providers continue to be responsible for completing the Family Planning Interview Guide for each client.[1]

Despite all these interventions, unintended pregnancy rates in Washington State remained unchanged until 2003. For women who gave birth in 2004 – 06, the Washington State Department of Health Pregnancy Risk Assessment and Monitoring Survey (PRAMS) showed that the proportions of births from unintended pregnancy decreased significantly for Medicaid

[1] Provider forms to document required Maternity Support Services are available at http://fortress.wa.gov/dshs/maa/firststeps/Provider%20Page/First%20Steps%20Documentation/Documentation.index.htm (accessed February 14, 2007). Reimbursement for the Family Planning Performance Measure ended in 2009.

women on TANF and the Pregnancy Medical (S) Program (citizens) yet remained unchanged for Non-Citizens and Non-Medicaid women.

Figure 1. Washington Births from Unintended Pregnancies by Medicaid Status 1995 – 2006



S Women, eligible for Medicaid solely because of pregnancy, comprised 44.4% of total Medicaid-paid deliveries in 2007. Women on TANF and Non-Citizens accounted for the majority of the remaining deliveries, with 28.4% and 22.3%, respectively. Of the 18,367 Medicaid-funded deliveries to S Women in 2007, an estimated 59% were unintended at conception. Although the proportion of births representing unintended pregnancies among S Women is slightly lower than that for TANF women—for whom 61% of births were unintended at conception—the rate for higher-income (i.e., Non-Medicaid) women is much lower, with only 22% of births to Non-Medicaid women unintended at the time of conception.

Although the decrease in the proportion of births from unintended pregnancies is encouraging, and the timing and pattern of change point to a positive impact of the TAKE CHARGE program, the rates for regular Medicaid women (TANF and S Women citizens) remain considerably higher than those for Non-Citizens and Non-Medicaid women. S Women (citizens), who are eligible for ten months of family planning coverage after their full-scope medical coverage ends, have been modest users of family planning services through TAKE CHARGE. How TAKE CHARGE can be more effective in reaching this group is the focus of this study.

LITERATURE REVIEW

Previous research has underscored the continued need for postpartum contraception use in general, and among women eligible for Medicaid in particular. For example, based on nearly 300 prenatal interviews with Medicaid eligible women in Detroit, Miller and colleagues (2000)

reported that only 8% intended *not* to use contraception following delivery, although postpartum interviews with the same women revealed that fully 18% were not using contraception.

DePiñeres, Blumenthal, and Diener-West (2005) estimated that, in New Mexico, approximately 78% of women surveyed used postpartum contraception, compared with 64% contraceptive use among women aged 15 – 44 in the United States overall. Nevertheless, they also found racial and ethnic disparities in contraceptive use, noting that American Indians were significantly less likely than Hispanics and non-Hispanic whites to report using a method of contraception two to six months following childbirth. Their study did not address variation in the use of contraception with respect to income.

A number of factors—medical, social, and financial—contribute to the need for postpartum contraception. Short-interval pregnancies are associated with a variety of adverse medical and social outcomes for both mothers and their babies (Jacoby et al., 1999; King, 2003; Johnson and Johnson, 1980; Zhu et al., 1999). Encouraging women to use family planning services after childbirth can alleviate these problems by reducing the number of unplanned or mistimed pregnancies.

Lack of health insurance is also a growing problem in the United States. Nearly 60% of non-elderly adults with family incomes below 200% of the FPL—the eligibility threshold for TAKE CHARGE—are uninsured (SHADAC and The Urban Institute, 2006).

Lindrooth and McCullough (2007) suggested that among family planning demonstration programs implemented before 2000, both income-based expansions (n=8) and postpartum expansions (n=5) either yield financial benefits to states or, at the very least, are cost neutral. They concluded that the effect of income-based expansions is much larger than postpartum expansions, and that this is likely due to the fact that income-based expansions expand eligibility to all women, rather than only to those who are postpartum.

Bronstein et al. (2007) suggested that the broader mix of providers available under their Medicaid demonstration program in Alabama attracted a segment of service users who had not used care under the Title X clinic system. They acknowledged, however, that the demonstration program served a clientele that was more closely matched to the Title X program than the Medicaid maternity population.

STUDY GOALS

Our objective was to identify the reasons for the low family planning service use rate of recently pregnant Medicaid women and the low re-enrollment rate at the end of their automatic extension. We hypothesized that:

> **Hypothesis 1:** Ambivalence about becoming pregnant again was common among recently pregnant women, and this ambivalence contributed to their relatively low use of family planning methods in the postpartum year.

Hypothesis 2: Women who did and did not use family planning services in the postpartum year differed in personal characteristics, attitudes, or beliefs.

PROGRAM ENROLLMENT

Table 1 shows the total number of new TAKE CHARGE clients (Program G) and clients who are automatically transferred to TAKE CHARGE for post-pregnancy family planning services (Program S). Between July 2001 and the end of the first year, total enrollment was 98,973 unduplicated clients. By the end of the eighth year, TAKE CHARGE had enrolled 425,100 clients. During this same period, 38% of clients were eligible for Program S at least once.

Table 1. TAKE CHARGE July 1, 2001 – June 30, 2009

Demonstration Year	Program G TAKE CHARGE[1]	Program S Pregnancy Extension[2]	Total Unduplicated Clients
Year 1	62,657	38,066	98,973
Year 2	107,096	40,613	145,166
Year 3	125,972	41,134	164,327
Year 4	138,625	41,213	177,260
Year 5	134,660	40,901	173,057
Year 6	115,743	40,657	154,159
Year 7	85,617	39,606	123,526
Year 8	69,759	39,206	107,569
Total to Date	311,296	164,234	425,100

[1]Includes some clients who transitioned to or from Program S.
[2]Includes some women who transitioned to or from Program G.

COVERED SERVICES

TAKE CHARGE covers most FDA-approved birth control methods and a range of family planning-related services that help clients to prevent unwanted and mistimed pregnancies. The types of birth control methods covered include abstinence counseling; birth control pills; male and female condoms; diaphragm and cervical cap; Implanon™; emergency contraception; spermicidal foam, jelly and cream; IUD; natural family planning; contraceptive injections; contraceptive ring and patch; and male and female sterilization. Most clinics refer male and female sterilization procedures, and it is not uncommon for smaller clinics to refer IUD insertions to other providers. Most clinics dispense birth control methods on site; in other cases, clients can have their prescriptions filled at a local pharmacy.

Family planning-related services generally include gynecological exams (when medically necessary) and Education, Counseling, and Risk Reduction (ECRR) for men every twelve months. Testing for and treatment of sexually-transmitted infections (STIs) are covered by TAKE CHARGE only when medically necessary for the client to use her chosen contraceptive method.

METHODS

Responses from a survey of recently pregnant women with Medicaid-paid maternity care were used to describe Program S clients automatically enrolled in the TAKE CHARGE program post-pregnancy. Surveys were individually linked to birth certificates, Medicaid claims and eligibility history.

DATA SOURCES

Office of Financial Management (OFM) Medicaid Eligibility History. Spans of eligibility for specific entitlement programs are recorded with start and end dates for each Medicaid client. Specific combinations of program and match codes identify individual programs.

First Steps Database (FSDB). All Washington birth certificates are linked at the individual level to Medicaid claims and eligibility history. FSDB begins with births in July 1988 and currently contains linked birth certificates through 2007. The annual unduplicated count of TAKE CHARGE eligible clients is linked to the FSDB by Personal Identification Code (PIC).

Medicaid Management Information System (MMIS). HRSA's claims file contains a record for every claim submitted for reimbursement. For all TAKE CHARGE eligible clients, the FSDB staff submits the annual unduplicated PICs to HRSA to obtain a service history for appropriate time periods for each client. MMIS services history data are used to describe the types of family planning services provided.

SURVEY SAMPLE SELECTION

The survey sample was selected from 2682 Washington women, age 18 – 44, who gave birth to a live born infant between March 1, 2005, and April 30, 2005, and were enrolled in the Medicaid Pregnancy Medical Program (S). The FSDB was used to determine Medicaid status. The birth months of March and April were chosen so survey mailings and respondent contacts coincided with the second birthday of the target child.

The sample was further limited by excluding women with a primary language other than English or Spanish. Women in the Washington State Department of Health Pregnancy Risk Assessment and Monitoring Survey (PRAMS) were also excluded to minimize the burden on respondents. Finally, the sample was linked to the death records from the Washington State Department of Health to exclude women from the sample who were deceased or whose infant born in March or April was deceased. The final survey sample consisted of 2504 women.

SURVEY ADMINISTRATION

The Washington State Institutional Review Board (WSIRB) approved the study on November 3, 2006. The Washington State University Institutional Review Board (WSUIRB) granted approval for the survey contractor to implement the survey. WSUIRB has a reciprocal protocol review agreement with the WSIRB.

The questionnaire was developed from existing surveys with the addition of some novel questions. Questions addressed client family planning behavior, attitudes, and knowledge. All Spanish translations of survey materials were reviewed by a DSHS-certified translator.

Research and Data Analysis (RDA) contracted with the Social & Economic Sciences Research Center (SESRC) at Washington State University in Pullman, Washington, to administer the survey. A mixed-

mode method consisting of web, mail, and phone versions of the survey maximized response rates. The SESRC's report (2007) describes survey administration in detail.

The questionnaire and contact letters were pretested with a sample of 400 Washington women, age 18 – 44, with Medicaid-paid births in November or December 2004. The questionnaire and contact letters were modified based on feedback from a focus group conducted with the phone interviewers. The final mail questionnaire is provided in Appendix A.

Full-scale data collection began February 22, 2007, and ended June 15, 2007. Initial contact was a prior notification letter introducing the survey and informing respondents they would receive a questionnaire in the mail the following week. The prior notification letter contained a website address and personal access code allowing respondents to complete the survey online if desired. A survey packet containing a questionnaire, cover letter, stamped return envelope, and five-dollar bill was mailed one week after the prior notification letter. A postcard reminder was sent one week following the questionnaire, thanking respondents for completing the survey and inviting those who had not done so to complete and return the survey as soon as possible. All non-respondents were sent a replacement questionnaire during week five. RDA attempted to find updated contact information (phone) for returned mailings. Phone contact with non-respondents, including those with updated contact information, began in week seven. During the telephone contact, respondents were given the option of completing the questionnaire by phone, on the web site, or returning the paper questionnaire.

Prior to analyses, RDA removed any duplicate surveys and applied skip patterns. To ensure all responses were included in the analysis, text answers written in response to numeric questions were recoded. Open-ended "Other" responses were reviewed and recoded if the response matched one of the choices already provided. Subcategories were created for similar open-ended "Other" responses that did not match choices already provided.

The crude survey response rate was 52.9%. We were unable to locate nearly one-quarter (22.2%) of the survey sample. This is not surprising since contact information for the survey sample was up to two years old. Of the 1570 contacted women eligible for the study, 82.3% completed the survey. The majority of respondents answered the mail version of the survey (73.3%). An additional 19.6% of respondents completed the survey over the telephone with an interviewer, and 7.1% completed the online version of the survey.

Table 2. Survey Sample Contacts and Response Rates

Disposition	Number of S Women	Percent of Total
Total Survey Sample	2504	100.0%
Ineligible	40	1.6%
Unable-to-Locate	555	22.2%
No Response	339	13.5%
Successfully Contacted Eligibles	1570	62.7%
Refused	278	17.7%
Completed Surveys	1292	82.3%
Mail	947	73.3%
Phone	253	19.6%
Web	92	7.1%
Response Rate		
Response Rate[1]	1292/2442	52.9%
Response Rate of Contacted Eligibles[2]	1292/1570	82.3%

[1]Response Rate Eligible S-Women = completed/sample size adjusted for ineligibles

[2]Response Rate of Contacted Eligibles = $\frac{\text{(completed mail+completed web+completed phone)}}{\text{contacted eligibles}}$

DATA ANALYSIS

Information about TAKE CHARGE enrollment and client services was based on the entire population of TAKE CHARGE enrollees. Age and gender were the only demographic characteristics available for all TAKE CHARGE clients; these data were supplemented with information from birth certificates for the subset of female clients who had a birth certificate available for analysis. Data regarding client contraceptive use, client knowledge of Medicaid coverage for contraception, future pregnancy intention, and family planning behavior and attitudes were based on survey responses.

Study Groups

Survey Sample (n=2504). Washington women identified as enrolled in Medicaid pregnancy program S at the time of delivery in March – April 2005. Medicaid coverage for prenatal care or delivery was identified by linking Medicaid claims data to birth certificates. Women were limited to primary language equal to English or Spanish, age 18 – 44, with no identifiable fetal or infant deaths, maternal deaths, or PRAMS participation.

Survey Respondents (n=1292). Women in the survey sample who completed a mail, phone, or web version of the questionnaire.

Survey Respondents with a TAKE CHARGE Family Planning Service (n=691). Survey respondents who had at least one Medicaid-paid billing claim for a family planning service covered under TAKE CHARGE.

Survey Respondents using a highly effective family planning method (n=686). Responses to the survey question, *"During the last 2 months, what kinds of birth control did you use when you had sex?"* were categorized by method effectiveness. Women who reported using a highly effective method in combination with a less effective method were included in the highly effective method category. Highly effective methods included birth control pills, hormonal injection (Depo Provera®), intrauterine device, Implanon®, transdermal patch (Ortho Evra®), vaginal ring (Nuva Ring®), and female and male sterilization. Less effective methods included condoms, diaphragm, cervical cap, emergency contraceptive pills, spermicidal foam, jelly, and cream, withdrawal, rhythm, and natural family planning.

Survey Respondents with a Subsequent Birth or Pregnancy (n=301). Survey respondents who had a subsequent record of live birth in FSDB (n=163) or reported on the survey having a pregnancy since target birth in April – March 2005 (n=138).

Survey Respondents who re-enrolled in TAKE CHARGE (n=116). Survey respondents with an eligibility span in TAKE CHARGE Program G and Medicaid eligibility code P within 25 months of target birth in April – March 2005.

TAKE CHARGE Eligibles with Medicaid-Paid Births (n=133,174). All women eligible for TAKE CHARGE between July 1, 2001, and June 30, 2007, who had a Medicaid-paid birth (live birth or fetal death) between July 1, 1988, and June 30, 2007, and who were residents of Washington State at the time of delivery. This group includes only citizen women enrolled in Program S.

Statistical Analysis

Table 3 compares known characteristics of survey respondents with survey non-respondents and with S Women age 18 – 44 with a live birth in 2005. Significant differences existed between respondents

and non-respondents with respect to age, race/ethnicity, educational achievement, and region of residence. On average, respondents were half a year older than non-respondents (p=0.02). The race/ethnicity of most survey respondents was either white (73.3%) or Hispanic (15.6%). No significant differences existed between respondents and non-respondents regarding the average number of prior live births, primary language, or marital status. Between respondents and all S Women who gave birth in 2005, only race/ethnicity, education, and region of residence were significantly different.

Descriptive statistics were calculated for the total survey sample and for survey respondents and non-respondents. Significant differences between study groups for normally distributed continuous variables were determined using the two-sample t test. Categorical variables were constructed for continuous variables not normally distributed. The Wald chi-square test, or Fisher's exact test when appropriate, was used for categorical variables.

Logistic regression models described the relationships among demographics, socioeconomic status, and family planning knowledge, behavior, and attitudes on selected outcomes. The outcome variables in the logistic regression models were use of TAKE CHARGE family planning services following a Medicaid-paid delivery; subsequent birth or pregnancy within two years following a Medicaid-paid delivery; and highly effective birth control method use within two months of taking the survey. Only independent variables significantly associated with the outcome variable of interest were included in the logistic regression models.

In analyses using client surveys, data are presented with non-respondent sample weights applied. Non-respondent weights were calculated based on survey respondents as a proportion of all women sampled. Where survey responses are presented, weights were applied to adjust for differences in non-response for the following characteristics: region, education, race, and age. Survey variable percents are shown excluding observations with missing responses.

All analyses were conducted using SAS Version 9.1 for Windows (SAS Institute Inc., Cary, NC). Differences were considered significant at $p < 0.05$.

LIMITATIONS

Although we controlled for non-response, survey respondents and non-respondents may differ on factors we could not measure. Survey-related measures may not reflect family planning knowledge, behavior, and attitudes of clients under 18. Although survey questions asked respondents about the method they used to prevent pregnancy, it is possible that responses may have included methods they used to protect against STIs, such as condoms. Client race/ethnicity, parity, and marital status for G women were available only for those with a birth certificate available in the FSDB. It is possible clients not matched to the FSDB differ on these characteristics, which may influence their contraceptive and family planning behavior. The number of clients with a history of a birth may also be under-reported since information on births occurring before July 1988 or after June 2007 was unavailable at the time of this analysis.

Table 3. Comparison of Survey Respondents with Non-Respondents and S Women

Characteristic	Survey Respondents n=1292 (100%)	Non-Respondents n=1172 (100%)	Resp. vs Non-resp. *p**	S Women 2005 Births n=16,352 (100%)	Resp. vs S Women *p**
Age, mean ± SD	26.1 ± 5.5	25.6 ± 5.3	0.02	25.9 ± 5.4	0.19
18-19	115 (8.9)	123 (10.5)		1472 (9.0)	
20-24	479 (37.1)	473 (40.4)		6347 (38.8)	
25-29	370 (28.6)	305 (26.0)		4669 (28.6)	
30-34	206 (15.9)	177 (15.1)		2436 (14.9)	
35-39	100 (7.7)	82 (7.0)		1145 (7.0)	
40-44	22 (1.7)	12 (1.0)		283 (1.7)	
Race/ethnicity			<.01		<.01
White	947 (73.3)	759 (64.8)		11815 (67.0)	
Hispanic	202 (15.6)	187 (16.0)		2734 (15.5)	
African American	38 (2.9)	46 (3.9)		643 (3.6)	
Native American	13 (1.0)	28 (2.4)		446 (2.5)	
Asian/Pacific Islander	42 (3.3)	90 (7.7)		1154 (6.5)	
More than one race	39 (3.0)	47 (4.0)		628 (3.6)	
Other/Unknown	11 (0.9)	15 (1.3)		224 (1.3)	
Education			0.01		<.01
No high school diploma	209 (16.2)	212 (18.1)		2842 (17.4)	
High school diploma/GED	417 (32.3)	406 (34.6)		5888 (36.0)	
Some college or Associate's degree	510 (39.5)	439 (37.5)		6054 (37.0)	
Bachelor's degree or more	128 (9.9)	78 (6.7)		1279 (7.8)	
Unknown	28 (2.2)	37 (3.2)		289 (1.8)	
Prior Live Births			0.81		0.15
1	490 (37.9)	451 (38.5)		6999 (39.7)	
2	367 (28.4)	324 (27.6)		4725 (26.8)	
3	219 (17.0)	197 (16.8)		2884 (16.3)	
4-5	125 (9.7)	102 (8.7)		1734 (9.8)	
6 or more	23 (1.8)	27 (2.3)		444 (2.5)	
Unknown	68 (5.3)	71 (6.1)		858 (4.9)	
Primary Language			0.97		
English	1213 (93.9)	1101 (93.9)		not applicable	
Spanish	47 (2.6)	4 (2.6)		not applicable	
Unknown	32 (2.5)	28 (2.4)		not applicable	
Marital Status			0.15		0.47
Married	724 (56.0)	624 (53.2)		8990 (55.0)	
Unmarried	563 (43.6)	545 (46.5)		7294 (44.6)	
Unknown	5 (0.4)	3 (0.3)		68 (0.4)	
Region			<.01		0.02
King County	237 (18.3)	262 (22.4)		3605 (20.4)	
Western Washington	616 (47.7)	583 (49.7)		8591 (48.7)	
Eastern Washington	439 (34.0)	327 (27.9)		5448 (30.9)	

*Significant differences between respondents and non-respondents determined using chi-square test for categorical variables and two-sample t test for equal means for maternal age as a continuous variable.

FINDINGS

Recently pregnant women who were Medicaid eligible solely because of pregnancy (S Women citizens) comprised 44.4% of the total Medicaid deliveries in Washington in 2007. These women had family incomes up to and including 185% of the FPL. While the proportion of births from unintended pregnancies among S women decreased from 56.3% in 2000 – 02 to 47.9% in 2003 – 05, the proportion of births from unintended pregnancies increased to 53.6% in 2006 – 07. Similarly, for women on TANF at delivery, the proportion of births from unintended pregnancies decreased from 65.2% in 2000 – 02 to 57.5% in 2003 – 05, the proportion of births from unintended pregnancies increased to 62.0% in 2006 – 07.

Table 4. Unintended Pregnancy Rates for Washington Women

Thinking back to just before you got pregnant, how did you feel about becoming pregnant?
□ I wanted to be pregnant later.
□ I didn't want to be pregnant then or at any time in the future.

Year of Births	TANF	S (Citizens)	Non-Citizens	Non-Medicaid
2000-02	65.2%	56.3%	40.2%	26.5%
2003-05	57.5%*	47.9%*	39.8%	25.3%
2006-07	62.0%	53.6%*	38.4%	23.1%

*Statistically significant difference from the previous years, $p<0.05$.

S women are automatically enrolled in the TAKE CHARGE program after their full-scope medical coverage ends two months after completion of their pregnancy; however, they have been modest users of family planning services through TAKE CHARGE and few of these women re-enroll in TAKE CHARGE after the end of their period of automatic eligibility. How TAKE CHARGE can be more effective in reaching this group is the focus of this study.

Survey questions will be presented by the following domains: Demographics and Economic Status, Employment and Health Insurance, and Family Planning Knowledge, Attitudes, and Behavior.

DEMOGRAPHICS AND ECONOMIC STATUS

Compared to other women with Medicaid-paid deliveries in 2005, S women had the highest educational attainment and intermediate ranks in smoking, marital status, and age. The proportion of S women having their first birth was greater than that of non-citizens and TANF women.

The proportion of survey respondents who reported being married was slightly greater at the time of the survey than on the birth certificate. An additional 21.7% of survey respondents reported that they were not married but were living with a partner at the time of the survey.

Comparable to all S women with births in 2005, 82.3% of survey respondents had a high school diploma at the target birth. At the time of the survey, the proportion of respondents with a high school diploma increased slightly to 86.6%.

Table 5. Characteristics of Washington Women with Medicaid Births in 2005

Maternal Characteristics	TANF N=12,062	S Women N=16,896	Non-citizens N=8453
Average age	24.3	25.7	26.5
Average age of mothers with first births	20.9	22.9	23.6
Mothers with first births (%)	33.3%	43.2%	33.7%
Married (%)	27.4%	53.9%	55.6%
Maternal smoking (%)	31.2%	14.5%	0.4%
At least a High School education (%)	64.2%	80.5%	35.5%
Bachelor's degree or more (%)	1.7%	7.8%	4.9%

Women with missing information were not included in the denominator.

The estimated monthly family income for respondents who reported being married or living with a partner was on average $900 more than respondents who reported being single, divorced, or separated. Very few (4.5%) respondents reported having a monthly family income of less than $500, and 11.9% reported having a monthly family income of more than $3500.

As shown in Table 3, women in the survey sample were representative of other S Women who gave birth in 2005. In contrast, S Women with a known prior birth were very different from G Women enrolled in TAKE CHARGE with a known prior birth, as shown in Table 6.

Table 6. Characteristics of Program G and S Women Enrolled in TAKE CHARGE Demonstration Years 1 – 6

Characteristic	Program G	Program S	Total
Total Women Enrolled Jul 2001 - Jun 2007	236,493	112,512	349,005
Medicaid-paid Births Jul 1988 - Dec 2006	36,931	87,133	124,064
Percent with History of a Medicaid-paid Birth	15.6%	77.4%	35.5%
Age at Enrollment (mean years)			
Clients without History of a Medicaid-paid Birth	21.6	24.9	22.0
Clients with History of a Medicaid-paid Birth	23.4	26.2	25.8
Age at Most Recent Medicaid-paid Birth (mean years)			
Married	25.2	27.7	27.2
Single	22.2	24.4	23.6
Number of Prior Births (median)			
Married	1	1	1
Single	0	1	0

History of a Medicaid-paid birth, age at most recent birth, and number of prior births from FSDB.

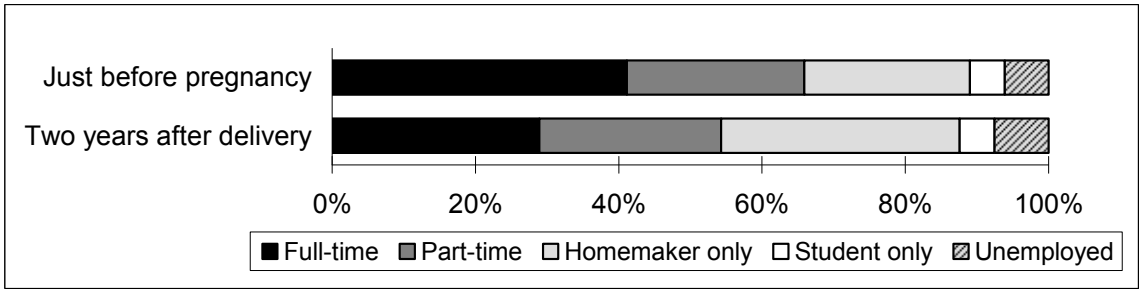
- More than three-fourths (77.4%) of S women had a prior Medicaid-paid birth recorded, compared to 15.6% of G women.

- On average, S women were 3 years older at initial enrollment than G women.
- Married women in both programs were older at their most recent birth than unmarried women.
- Among single women, S women averaged one prior birth at initial enrollment compared to none for G women.

EMPLOYMENT AND HEALTH INSURANCE COVERAGE

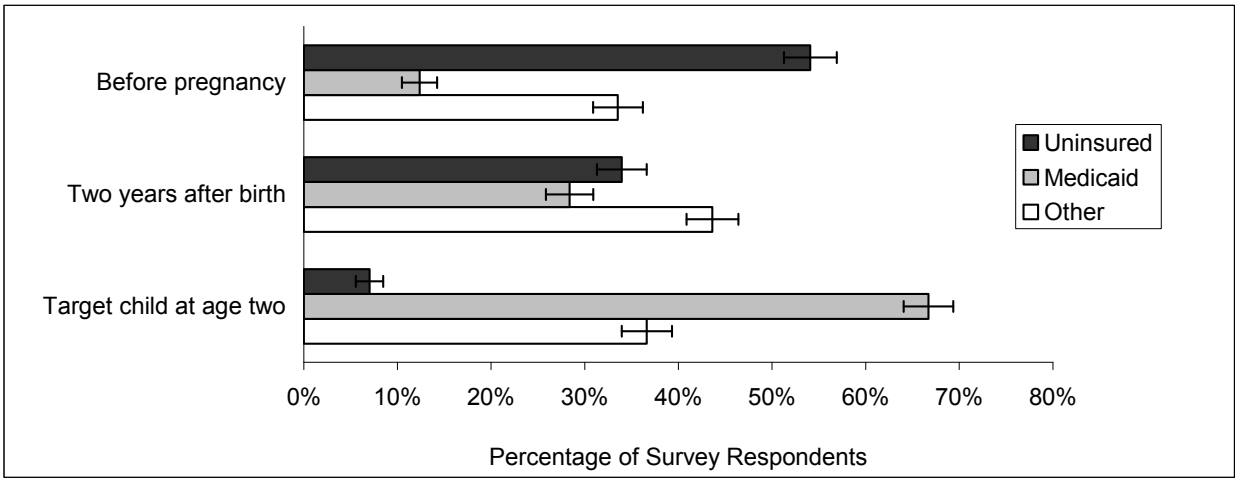
Before the pregnancy that qualified them for participation in this survey, two-thirds (65.9%) of these women were working full-time or part-time; however, more than half (54.1%) had no health insurance at that time.

Figure 2. Employment Status Before and After Birth



At the time of this survey, two years after the target pregnancy, the proportion of women working full-time had decreased from 41.2% to 28.9%. The proportion working part-time was essentially unchanged (24.8% versus 25.4%). The proportion whose primary occupation was homemaker increased from 23.1% prior to pregnancy to 33.3% two years later.

Figure 3. Type of Health Insurance Coverage Before Pregnancy and Two Years After Birth



*Respondents could select all responses that applied, so proportions will not add to 100%. Proportions weighted for non-response.

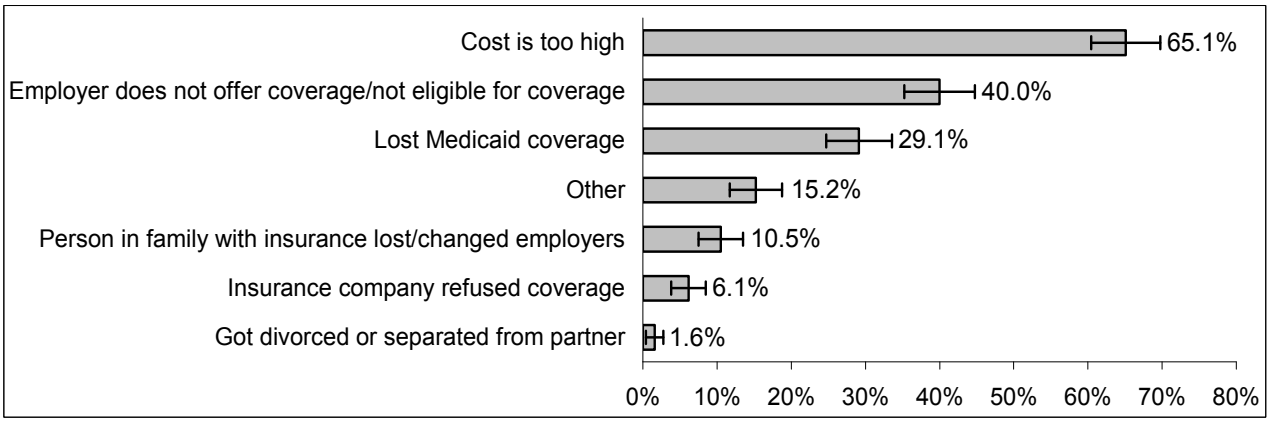
The proportion of women with no health insurance decreased from 54.1% prior to pregnancy to 34.0% two years after having a Medicaid-paid birth. During this time period, the proportion of women with employer-based, military, or state-sponsored coverage increased from 33.5% to 43.6%, and Medicaid coverage increased from 12.4% to 28.4%. Self-reported Medicaid coverage was slightly higher than Medicaid eligibility data. Matching survey respondents to Medicaid eligibility data showed that 10.3% were eligible for Medicaid (excluding TAKE CHARGE) approximately one month before pregnancy and 23.6% were eligible two years after delivery.

For target children at age two, respondents stated that 66.7% were covered by Medicaid, 36.6% were covered by private, state, or military health plans, and 7.0% were uninsured.

Over one-third (35.9%) of respondents with a child on Medicaid at age two were uninsured at the time of the survey compared to 15.2% of women with a child on employer-based, military, or state-sponsored plans. Furthermore, 83.4% of women with an uninsured child were themselves uninsured at the time of the survey.

The most frequently reported reason for lack of insurance at the time of the survey was that the cost of insurance is too high (65.1%). Other reasons were an employer not offering coverage or the client not being eligible for coverage (40%), and more than a quarter of the women reported the loss of Medicaid coverage as the reason they were uninsured (29.1%).

Figure 4. Reasons Cited for Not Having Health Insurance at the Time of the Survey

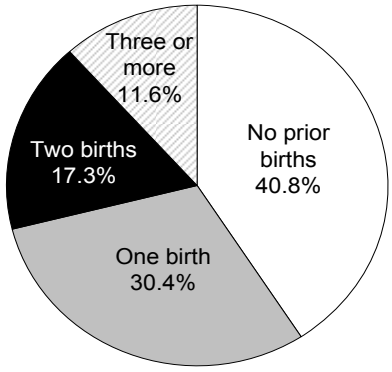


Respondents could select all responses that applied, so proportions will not add to 100%. Percents weighted for non-response.

PATTERNS OF CHILD BEARING

Birth certificate data revealed that 40.8% of survey respondents had no prior live births between July 1988 and April 2005. Nearly one-third (30.4%) of the women had one prior birth, and 17.3% had two prior births. Overall, women had an average of one live birth prior to the birth that qualified them for participation in this survey.

Figure 5. S Women: Prior Births



Percentages exclude women with missing prior birth information.

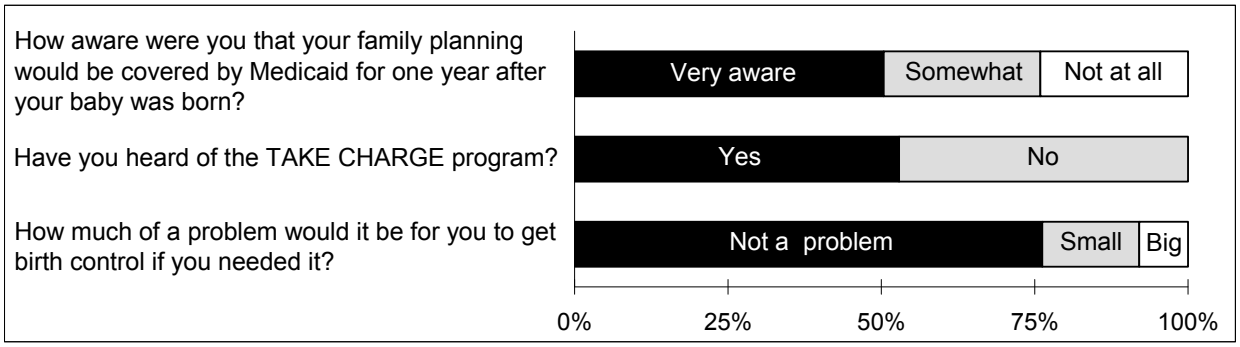
Of the 687 women with a birth in FSDB before 2005, 23.5% gave birth within 24 months of the target birth. The interval between the prior birth and the target birth ranged from 10 to 172 months, with a median of 38 months (rounded to the nearest month). Nearly one-fifth (18.4%) of respondents with a prior birth recorded had a subsequent birth identified (up to 33 months after the target birth) as well.

At the time of this survey, 11.6% of women had a subsequent birth within two years after the target pregnancy. Of these 152 women, the average interval between the target birth and the subsequent birth was 18 months (rounded to the nearest month). Only 23 respondents had both a prior birth within two years before the target birth and a subsequent birth within two years after the target birth.

KNOWLEDGE OF FAMILY PLANNING SERVICES

Women with recent Medicaid-paid births experience various opportunities to receive information about postpartum family planning services. In the few weeks before or after their baby was born, 92.0% of women said that a doctor, nurse, or other health care worker talked with them about family planning or using birth control. During this same time period, 44.8% of women said they received counseling or information about birth control, and 15.8% received counseling or information about getting sterilized.

Figure 6. Awareness of Medicaid Family Planning Services



Although some women (24.1%) were unaware of Medicaid-coverage for postpartum family planning services, the majority were either very aware (50.4%) or somewhat aware (25.5%) that their family planning services would be covered by Medicaid for one year after the birth of their infant. Fewer respondents recognized the program by name. Almost half (47.1%) reported they had not heard of the TAKE CHARGE program that provides family planning services to many women in Washington State.

Access to birth control was not a major issue from the clients' perspective. At the time of the survey, 76.2% of women reported that it would not be a problem to get birth control if they needed it. A smaller proportion of women (15.8%) reported it would be a small problem and 8.0% reported it would be a big problem.

ATTITUDES ABOUT FAMILY PLANNING

Overall, four out of five women either strongly agreed or agreed that it is best to plan ahead for a pregnancy by using birth control methods. A smaller proportion (15.4%) of the respondents neither agreed nor disagreed that it was best to plan ahead for a pregnancy by using birth control methods. Small proportions of women said they either disagreed (1.8%) or strongly disagreed (2.0%) with the statement.

Nearly two-thirds of women reported that family finances affected their decision to have a baby at least somewhat: 48.1% of women said finances had some influence on their decision and 17.0% of women said it influenced their decision a lot.

Figure 7. Do you agree with the statement: "*It is best to plan ahead for a pregnancy by using birth control methods*"?

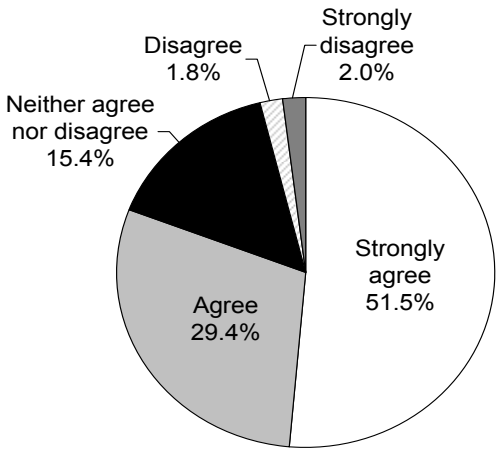
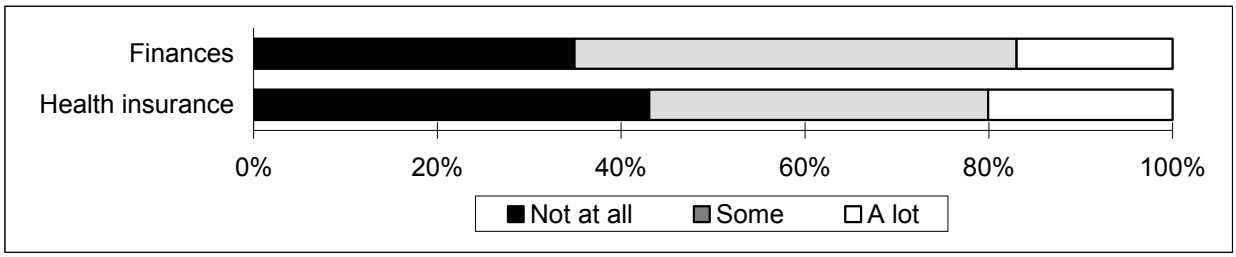


Figure 8. How much did finances and health insurance affect your decision to have a baby?



For many women, the decision to have a baby was not influenced by having health insurance. At the time of the survey, 36.9% of women were concerned about insurance, but it only affected their decision to have a baby "some." An additional 43.1% of women reported that health insurance did not affect their decision at all. On the other hand, 20.1% of women reported that health insurance affected their decision a lot and that they would not have a baby without it.

About 80% of women said they were mostly or totally confident that they could choose the number of children they would have in the future. The remaining women were somewhat confident (10.9%), a little confident (5.4%), or not at all confident (3.6%).

FAMILY PLANNING BEHAVIOR

During the three months before they got pregnant with the birth that qualified them for this survey, 24.8% of women were trying to get pregnant while 16.2% were trying hard to keep from getting pregnant. Nearly 60% of women expressed ambivalence about pregnancy: 31.0% were not trying to get pregnant or keep from getting pregnant, and 28.0% were trying to keep from getting pregnant but not very hard.

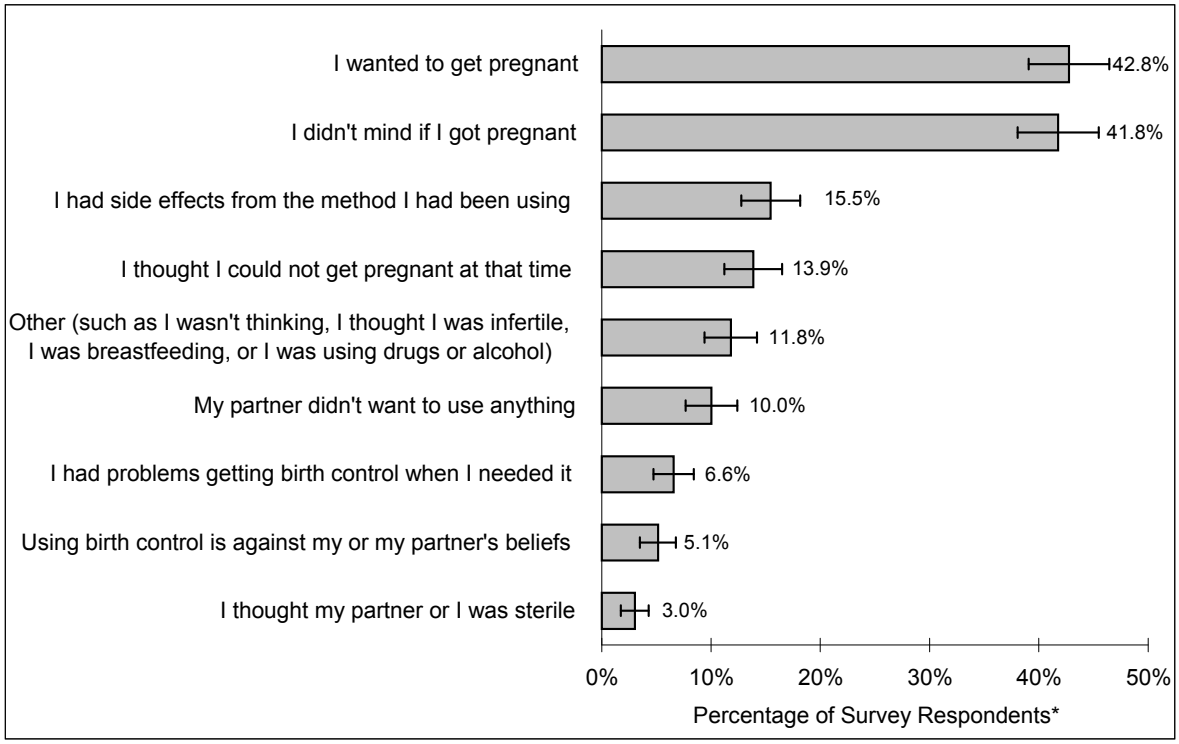
Table 7. Pregnancy Intention and Family Planning Behavior

Which of the following statements best describes you during the 3 months before you got pregnant?	n	(wt. %)	Using Birth Control* wt. % (95% CI)
Trying hard to keep from getting pregnant	210	16.2%	90.8% (86.8-94.8)
Trying to keep from getting pregnant but not very hard	353	28.0%	63.9% (58.8-69.1)
Wasn't trying to get pregnant or trying to keep from getting pregnant	393	31.0%	28.6% (24.0-32.2)
Trying to get pregnant	326	24.8%	5.4% (2.9-8.0)
Total	**1282**	**100.0%**	**42.9% (40.1-45.7)**

*Percentage of respondents who reported that they or their partner was using some sort of birth control method at the time they got pregnant (weighted for non-response).

Over 40% of women reported that they were using a birth control method at the time they got pregnant with the target birth. A woman's pregnancy intention during the three months before she became pregnant corresponded with her or her partner using birth control at the time of conception. Of the 210 women who said they were trying hard to keep from getting pregnant, 90.8% reported that they or their partner were using birth control. On the other hand, 5.4% of women who were trying to get pregnant said they or their partner were using birth control.

Figure 9. Reasons Cited for Not Using Birth Control When Becoming Pregnant with the Birth That Qualified Them for This Survey

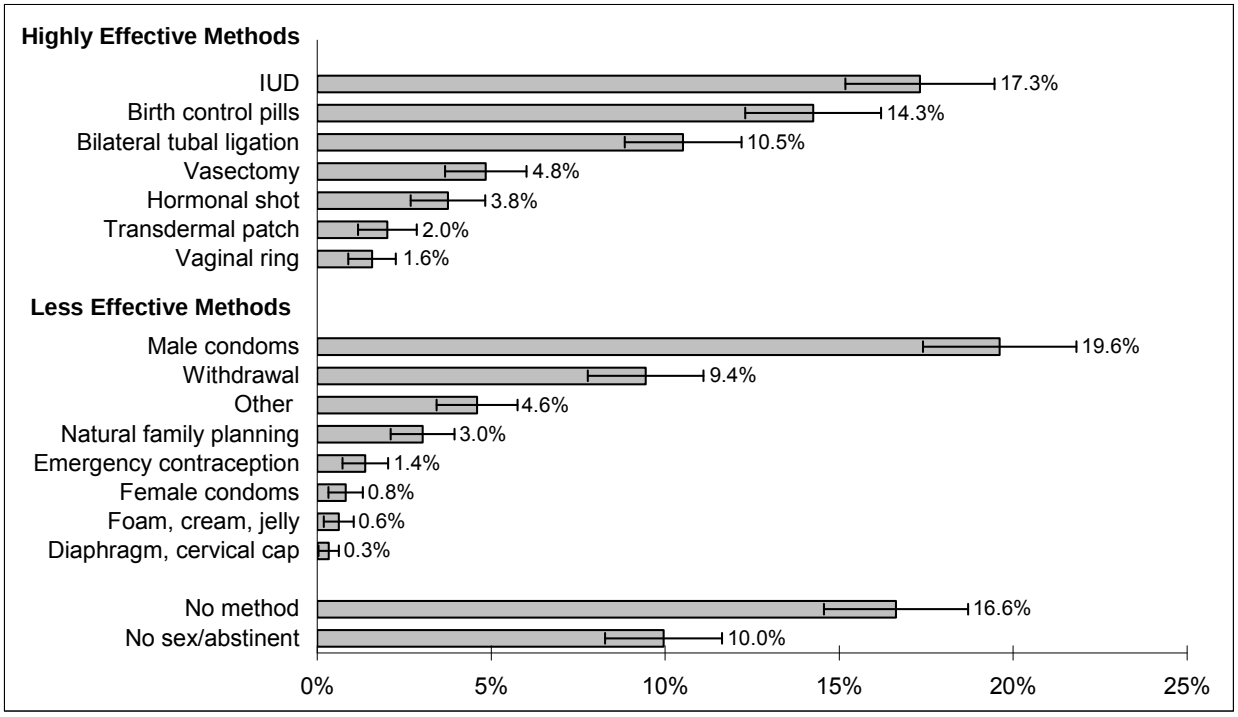


*Respondents could select all responses that applied, so proportions will not add to 100%. Proportions weighted for non-response.

At the time women became pregnant with the birth that qualified them for this survey, 56.9% reported that they were not doing anything to keep from getting pregnant. Reasons ranged from wanting to get pregnant (42.8%) and not minding if she got pregnant (41.8%) to thinking that she or her partner was sterile (3.0%).

Fewer than one in ten (6.6%) survey respondents reported they were not using birth control at the time they became pregnant because they had problems getting it when they needed it. Almost half of those women also reported having problems getting birth control at the time of the survey: 26.5% reported that if they needed birth control now, it would be a small problem, and 22.4% said it would be a big problem.

Figure 10. Types of Birth Control Methods Used During the Last Two Months



*Respondents could select all responses that applied, so proportions will not add to 100%. Proportions weighted for non-response.

Women reported on the survey the types of birth control they or their partner used when having sex during the past two months. Among highly effective methods, IUDs were most frequently reported, followed by birth control pills and sterilization. Among less effective methods, male condoms were most frequently reported, followed by withdrawal. Using no method was reported by 16.6% of women, and 10.0% reported abstinence or no sex in the past two months.

PREGNANCY INTENTION

A woman's use of family planning services may be influenced by her future childbearing goals or her ambivalence towards pregnancy. The survey collected information about pregnancy wantedness, level of trying to get pregnant (or to avoid getting pregnant), and feelings about getting pregnant to describe a respondent's past, present, and future pregnancy intentions. In the

evaluation of the first five years of TAKE CHARGE, a sample of Program G women was asked about their future pregnancy intentions at enrollment. In this survey, recently pregnant women were asked the same question.

Program G and Program S women demonstrated significant differences regarding future pregnancy intention (Table 8 below). At the time of the survey, 10.8% of Program S women reported they wanted to get pregnant in the next 12 months (excluding women with a subsequent birth or pregnancy) compared to 0.8% of Program G women. More than three-fourths (75.4%) of Program G women reported that they *really* did not want to get pregnant compared to 51.4% of Program S women. More Program S women were ambivalent about pregnancy than Program G women: 13.6% of S women said they either kind of did and kind of did not want to get pregnant or did not care one way or the other compared to 3.9% of G women.

Table 8. Future Pregnancy Intention by Program

Which of the following statements best describes what you want to happen during the next 12 months?	**G-women*** **n=3796 (95% CI)**	**S-women†** **n=1119 (95% CI)**
I *want* to get pregnant during the next 12 months.‡	0.8% (0.5-1.2)	10.8% (9.0-12.7)
I kind of want to get pregnant and I kind of don't want to get pregnant.‡	2.8% (2.1-3.5)	6.3% (4.8-7.8)
I don't care one way or the other if I get pregnant.‡	1.1% (0.7-1.4)	7.3% (5.6-8.9)
I do not want to get pregnant.‡	20.0% (18.2-21.7)	24.2% (21.6-26.8)
I *really do not want* to get pregnant in the next 12 months.‡	75.4% (73.5-77.2)	51.4% (48.4-54.4)

*Program G client pre-survey results from the TAKE CHARGE program evaluation, years one through five.

†Weighted for survey non-response. Excludes women who reported being pregnant at the time of the survey and question non-respondents.

‡Signifcant difference between Program G and Program S survey respondents using 95% CI for difference in proportions.

Future pregnancy intention also differed significantly among S women by their living situation at the time of the survey. A larger proportion of married or partnered women wanted to get

Table 9. Future Pregnancy Intention by Marital Status Among S Women

	Program S	
Which of the following statements best describes what you want to happen during the next 12 months?	**Married/Partner n=859 %* (95% CI)**	**Single/Divorced n=248 %* (95% CI)**
I *want* to get pregnant during the next 12 months.	13.3% (11.0-15.6)	3.0% (0.9-5.0)†
I kind of want to get pregnant and I kind of don't want to get pregnant.	7.3% (5.5-9.1)	2.8% (0.7-5.0)†
I don't care one way or the other if I get pregnant.	7.2% (5.4-9.0)	7.0% (3.6-10.3)
I do not want to get pregnant.	24.8% (21.9-27.8)	22.7% (17.4-28.0)
I *really do not want* to get pregnant in the next 12 months.	47.4% (44.0-50.8)	64.6% (58.5-70.6)†

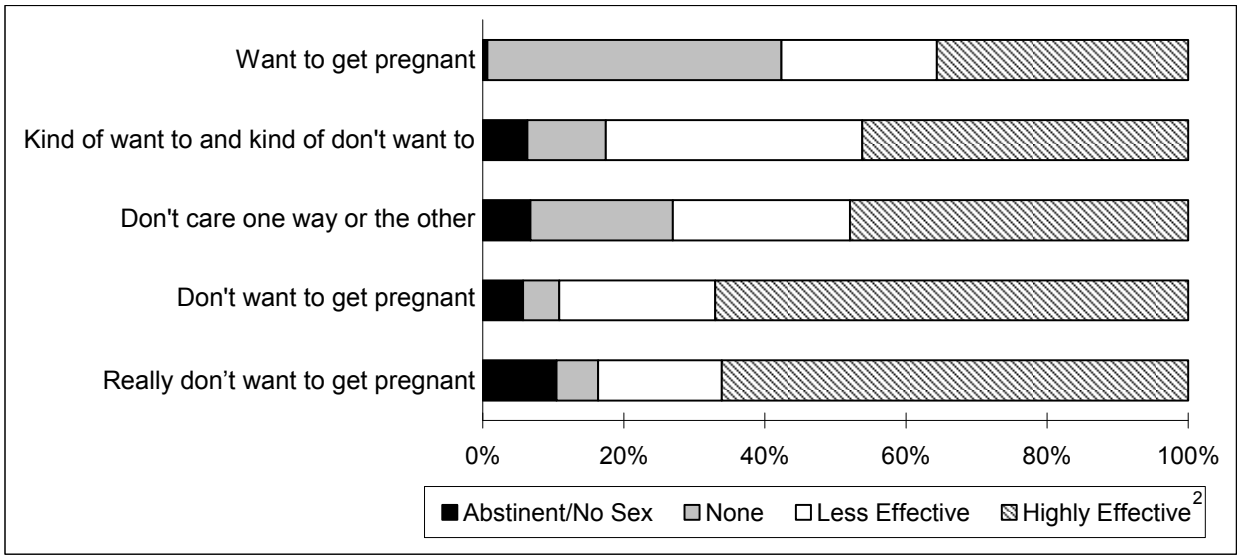
*Weighted for survey non-response. Excludes women who reported being pregnant at the time of the survey and question non-respondents.

†Signifcant difference between married/living with partner and single/divorced/separated respondents using 95% CI for difference in proportions.

pregnant or kind of wanted to get pregnant in the next 12 months compared to single, divorced, or separated women. The proportion of women who reported that they did not care one way or the other was similar for these two groups of women (married/partnered: 7.2%, single/divorced/separated: 7.0%).

In addition to future pregnancy intention, women also reported the types of family planning method they used during the last two months. The chart below combines future pregnancy intention with effectiveness of the method reported.

Figure 11. Future Pregnancy Intention and Effectiveness of Reported Family Planning Method



Excludes women who reported being pregnant at the time of the survey.

The effectiveness of the family planning method respondents reported using at the time of the survey generally corresponded to future pregnancy intention.

- Highly effective methods were used by 35.6% of women who wanted to get pregnant, 46.2% of women who kind of wanted to get pregnant, 47.9% of women who did not care if they got pregnant, 64.9% of women who did not want to get pregnant, and 66.1% of women who really did not want to get pregnant.
- Less effective methods were used by 22.0% of women who wanted to get pregnant, 36.3% of women who kind of wanted to get pregnant, 25.1% of women who did not care if they got pregnant, 21.4% of women who did not want to get pregnant, and 17.5% of women who really did not want to get pregnant.
- Over half the women who said they wanted to get pregnant in the next year used either a highly effective (35.6%) or a less effective method (22.0%) during the past two months.

[2] **Highly effective methods** included birth control pills, hormonal injection (Depo Provera®), intrauterine device, Implanon®, transdermal patch (Ortho Evra®), vaginal ring (Nuva Ring®), and female and male sterilization. **Less effective methods** included condoms, diaphragm, cervical cap, emergency contraceptive pills, spermicidal foam, jelly, and cream, withdrawal, rhythm, and natural family planning.

MEDICAID FAMILY PLANNING METHODS

This section describes family planning methods paid by Medicaid and the TAKE CHARGE program. Medicaid eligibility information was linked to Medicaid billing records to identify the type of family planning methods received and the corresponding program providing coverage. Table 9 shows the Medicaid-paid family planning methods received by S women who gave birth between January 1 and December 31, 2005, and by those who enrolled in TAKE CHARGE between July 1, 2005, and June 30, 2006. (S women who gave birth in 2005 would have been eligible for TAKE CHARGE Program S during year five of the demonstration.)

For S women with births in 2005, Medicaid-paid family planning services received are shown by type of reimbursement at delivery. Healthy Options, Medicaid's managed care plan, typically bills a monthly capitation rate, while fee-for-service (FFS) providers bill for each service provided. Therefore, individual (FFS) claims data permit better ascertainment of Medicaid-paid family planning services.

Table 10. Medicaid-Paid Family Planning Service Receipt of S Women with Births in 2005 and TAKE CHARGE Enrollees in Demonstration Year 5

	S Women 2005		TAKE CHARGE Year 5	
	Healthy Options	**Fee-For-Service**	**Program S**	**Program G**
Total Women Enrolled (n, % of program total)	10,291 (65.0%)	5,552 (35.0%)	39,748 (24.1%)	125,105 (75.9%)
Medicaid-paid Family Planning Services	*prior to TAKE CHARGE eligibility**		*during TAKE CHARGE eligibility***	
Participants (n, % of total enrolled)	878 (8.5%)	2,095 (37.7%)	14,075 (35.4%)	94,311 (75.4%)
Family Planning Methods (% of participants)				
Oral Contraceptives	43.5%	50.7%	49.1%	58.8%
Hormone Injection (Depo Provera®)	4.6%	10.2%	13.0%	11.6%
Transdermal Patch (Ortho Evra®)	8.3%	7.4%	13.5%	9.6%
Vaginal Ring (Nuva Ring®)	2.5%	1.3%	8.2%	12.1%
Intrauterine Device (IUD)	6.6%	9.2%	6.1%	1.4%
Bilateral Tubal Ligation (BTL)	2.3%	15.0%	1.7%	0.4%

* Medicaid-paid medical family planning services received between delivery and 60 days postpartum.

** Medicaid-paid medical family planning services received during TAKE CHARGE eligibility span in Program S or Program G.

A moderate proportion of S women received a family planning method prior to their automatic enrollment in TAKE CHARGE. For S women enrolled in FFS, 37.7% received a Medicaid-paid family planning method between delivery and 60 days postpartum. Nearly one-quarter (24.2%) of FFS S women who received a family planning method prior to TAKE CHARGE eligibility chose a long-term (IUD, 9.2%) or a non-reversible method (BTL, 15.0%).

Many women in Healthy Options may receive a family planning method through their managed care Healthy Options provider without a claim for the service being submitted to HRSA. Overall, the proportion of Healthy Options clients with an identified Medicaid-paid family planning service (8.5%) is much lower than that for fee-for-service clients (37.7%). In addition, some family planning methods, for example tubal ligation, are included in the Healthy Options benefits package, so the frequency of such claims is particularly low for managed care clients (as

per the example, 2.3% among those with a tubal ligation compared to 15% for FFS clients). For other family planning methods, managed care clients have the option of obtaining their method from a DSHS-approved Family Planning Clinic. In some cases the family planning clinic will submit a FFS claim to HRSA; however, if the managed care plan contracts with the family planning clinic, the clinic will submit their claim to the managed care plan, and our claims data will not include a record of that service.[3]

For both Program S and G women, oral contraceptives were used considerably more frequently than any other method. However, the use of other methods varied between the two groups, with S women being more likely to get an IUD or a sterilization procedure, and with G Women being more likely to use the vaginal ring.

Following the end of Program S eligibility, 117 (9.2%) women re-enrolled in TAKE CHARGE and 90% of those re-enrolled received a family planning service. During demonstration years one through six, the annual re-enrollment rate among Program G women averaged 36.1%. Of women surveyed, 20.5% became eligible for Program S two years postpartum with a subsequent pregnancy or birth.

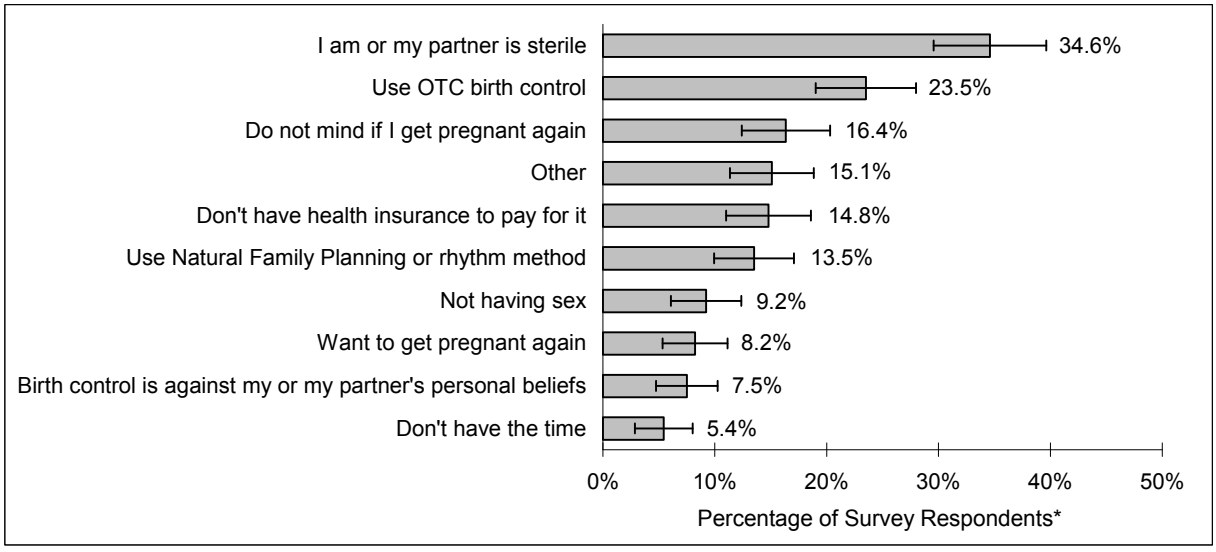
[3] Generally speaking, claims data for women in FFS will more accurately reflect the use of family planning methods than will claims for women in Healthy Options. Data for S women during pregnancy and the first two postpartum months require careful interpretation as nearly two-thirds (65%) of S women were in managed care at the time of delivery. All TAKE CHARGE claims are reimbursed through fee-for-service.

Factors Associated with Medicaid Family Planning Service Use

Within one year after delivery, 54.4% of women eligible for Program S received a Medicaid-paid family planning service. Table 11 (next page) compares characteristics and responses to selected survey questions for women by receipt of family planning services. Compared to their counterparts who did not receive a Medicaid family planning service, women who received a Medicaid family planning service were younger, had fewer years of education, had fewer prior live births, and were more frequently employed full-time.

After the birth that qualified them for this study, 41.0% of women reported they had not seen a health care provider for birth control or family planning. To explore reasons why women did not use a TAKE CHARGE family planning service, we restricted responses to women who said they did not see a health care provider and also did not have a Medicaid-paid claim for a TAKE CHARGE family planning service (n=362).

Figure 12. Reasons Cited for Not Seeing a Health Care Provider for Birth Control Following Delivery



*Respondents could select all responses that applied, so proportions will not add to 100%. Proportions weighted for non-response.

The most common reason women did not go to a health care provider for birth control was that they were sterile or had a partner who was sterile (34.6%). Additional reasons included using over-the-counter (OTC) birth control methods (23.5%), not minding if they got pregnant (16.4%), not having health insurance to pay for services (14.8%), or using natural family planning methods (13.5%). A smaller proportion reported that they were not having sex (9.2%), they wanted to get pregnant again (8.2%), or birth control was against their or their partner's personal beliefs (7.5%). Of the 56 women who reported "Other" reasons, 17 commented they did not like the method's side effects, and 11 reported that they were using an IUD.

Single women were more likely to receive a TAKE CHARGE family planning service than married women. Overall, 57.3% of women who were single at the time of delivery received a TAKE CHARGE family planning service compared to 52.0% of women who were married

Table 11. TAKE CHARGE S Women Family Planning Service Users vs. Non-Users

Characteristic	FP Service n=691	(%)†	No FP Service n=594	(%)†	p*
Age at delivery (years)					<.01
mean ± SD	25.0	±17.8	27.0	±19.7	
18-19	71	(11.2)	44	(8.6)	
20-24	301	(45.3)	176	(31.7)	
25-29	193	(26.3)	176	(28.6)	
30-34	83	(11.9)	121	(19.8)	
> 34	43	(5.3)	77	(11.2)	
Education at delivery					<.01
No high school diploma	126	(19.8)	82	(14.7)	
High school diploma/GED	237	(35.7)	180	(32.4)	
Some college or AA degree	258	(36.7)	247	(41.3)	
Bachelors degree or more	51	(6.3)	76	(10.7)	
Unknown	19	(1.5)	9	(0.8)	
Number of live births (including target birth)					<.01
median	2		2		
1	292	(43.2)	196	(33.6)	
2	198	(28.7)	168	(29.3)	
3	97	(13.7)	121	(19.7)	
≥4	61	(8.5)	86	(13.9)	
Unknown	43	(5.9)	23	(3.6)	
Marital Status at delivery					0.06
Married	368	(52.0)	352	(57.6)	
Single	319	(47.4)	241	(42.3)	
Unknown	4	(0.6)	1	(0.2)	
Employment status prior to pregnancy					<.01
Full time	320	(47.5)	197	(33.7)	
Part time	166	(24.2)	148	(25.5)	
Unemployed/laid off	36	(5.2)	41	(7.1)	
Student	33	(4.5)	30	(5.4)	
Homemaker	129	(18.5)	171	(28.4)	
Current employment status at time of survey					0.05
Full time	216	(31.8)	144	(25.1)	
Part time	164	(24.0)	157	(27.1)	
Unemployed/laid off	56	(8.3)	37	(6.5)	
Student	33	(4.5)	31	(5.3)	
Homemaker	213	(31.4)	214	(35.8)	
How aware were you that Medicaid would cover your family planning					0.08
Very aware	361	(53.3)	276	(47.0)	
Somewhat aware	170	(24.5)	155	(26.9)	
Not aware	155	(22.2)	150	(26.2)	
Have you heard of TAKE CHARGE?					<.01
Yes	396	(58.6)	272	(46.2)	
No	281	(41.4)	313	(53.8)	
Family Planning Method within two months of survey					<.01
Highly Effective	403	(58.9)	279	(47.2)	
Less Effective	147	(21.2)	157	(26.1)	
Abstinent	43	(5.9)	49	(8.5)	
None	97	(14.0)	109	(18.2)	
It's best to plan ahead for a pregnancy using birth control					<.01
Agree	565	(83.5)	447	(77.6)	
Neither agree nor disagree	97	(14.4)	92	(16.5)	
Disagree	14	(2.1)	35	(5.8)	

*Significant differences between respondents who received a family planning service and respondents who did not receive a family planning service determined using chi-square test for categorical variables and two sample t-test for equal means for maternal age as a continuous variable.

†Percentage weighted for survey non-response.

($p<0.01$, chi-square test). In addition, the relationship between family planning service use and marital status was influenced by age.

Table 12. TAKE CHARGE Family Planning Service Utilization by Marital Status and Age at Delivery

Age at Delivery	Single			Married		
	Total	Received FP Service		Total	Received FP Service	
	n	%*	OR (95% CI)	n	%*	OR (95% CI)
18-19	88	54.6%	0.96 (0.56, 1.64)	27	81.5%	4.47 (1.62, 12.32)†
20-24	231	61.8%	1.29 (0.85, 1.97)	242	64.1%	1.80 (1.23, 2.65)†
25-29	153	55.6%	ref.	215	49.7%	ref.
30-34	50	52.7%	0.89 (0.46, 1.72)	154	37.8%	0.61 (0.40, 0.95)†
> 34	38	45.8%	0.67 (0.32, 1.40)	82	32.3%	0.48 (0.27, 0.85)†
Total	560	57.3%		720	52.0%	

*Percentage of S Women who received a TAKE CHARGE Medical FP service weighted for survey non-response.

†Significant difference in the odds of receiving a TAKE CHARGE medical FP service compared to the odds of the reference group receiving a FP service.

As shown in Table 12, the odds of receiving a TAKE CHARGE family planning service were significantly higher for younger, married women compared to older, married women.

- For single women, the rate of Medicaid-paid family planning service use had no significant trend related to age.
- For married women age 18 – 19, the rate of Medicaid-paid family planning service use was 4.5 times greater than that of married women age 25 – 29. For women age 20 – 24, the rate was 1.8 times greater than that of women age 25 – 29.
- For older married women, age 30 – 34, the rate of Medicaid-paid family planning service was almost two-thirds (0.61 times) that of married women age 25 – 29. For women age 35 and older, the rate was about half (0.48 times) that of women age 25 – 29.

Logistic regression was used to describe factors associated with TAKE CHARGE family planning service utilization. After controlling for education and marital status, independent variables associated with family planning service use included: age, employment status prior to and following pregnancy, whether a woman was doing something to keep from getting pregnant at the time she became pregnant with the target birth, not having been sterilized or having a partner who has not been sterilized, and having heard of TAKE CHARGE.

Use of family planning services was strongly associated with a woman's attitude towards contraception and pregnancy planning. After controlling for age, education, and marital status, women who agreed that it is best to plan for pregnancy by using birth control used a TAKE CHARGE family planning service 2.5 times more often than women who disagreed with the statement.

Table 13. Factors Associated with Receiving a Medicaid-Paid Family Planning Service

Independent Factor	OR* (95% CI)
Married age 18-20 vs. married age 25-29	3.97 (1.35, 11.68)
Agree it is best to plan ahead for pregancy by using birth control methods vs. disagree	2.49 (1.20, 5.15)
No high school diploma at delivery vs. BA degree or more	2.01 (1.16, 3.48)
Employed full-time prior to pregnancy vs. homemaker only	1.82 (1.29, 2.58)
Married age 20-24 vs. married age 25-29	1.74 (1.15, 1.65)
Heard of TAKE CHARGE vs. had not heard	1.64 (1.27, 2.10)
Respondent or partner has not been sterilized vs. sterilized	1.55 (1.02, 2.34)
Using birth control when getting pregnant vs. not using birth control	1.30 (1.00, 1.68)

*Odds ratio adjusted for all variables listed in the model.

FAMILY PLANNING METHODS BEYOND TAKE CHARGE

Medicaid billing records from the first five years of the waiver evaluation showed that S women are modest users of TAKE CHARGE family planning services. However, survey responses from this phase of the evaluation indicate that many women used a family planning method in the two months before the survey even though they did not receive a TAKE CHARGE family planning service.

Table 14. Postpartum Medicaid Family Planning Service Use by Effectiveness of Reported Method Used in the Past Two Months

	Medicaid FP Service		No Medicaid FP Service		Total	
FP Method	n=690	(100%)*	n=594	(100%)*	n=1284	(100%)*
Highly Effective	403	(58.9)	279	(47.2)	682	(53.5)
Less Effective	147	(21.2)	157	(26.1)	304	(23.4)
None	98	(14.0)	109	(18.2)	207	(16.0)
Abstinent/No Sex	43	(5.9)	49	(8.5)	92	(7.1)

*Percentage weighted for survey non-response. Excludes seven respondents not eligible for Program S.

- Nearly one-half (47.2%) of women who did not receive a TAKE CHARGE family planning service used a highly effective method compared to 58.9% of women who received a TAKE CHARGE family planning (FP) service.
- A larger proportion (26.1%) of women who did not receive a TAKE CHARGE FP service used less effective methods two years after delivery than women who received a TAKE CHARGE family planning service (21.2%).

Women may have obtained FP methods through mechanisms other than TAKE CHARGE by paying out-of-pocket, by having health coverage (private or public) for family planning services apart from TAKE CHARGE, or by receiving a long-acting method at the time of delivery.

Table 15. S Women: Highly Effective Method Users vs. Nonusers

Variable	Highly Effective		No Highly Effective		
	n = 686	(%)†	n = 606	(%)†	*p**
Desired number of future children					<.01
median	0		1		
No more	375	(53.6)	169	(27.4)	
One more	184	(27.1)	218	(36.2)	
Two more	66	(9.6)	103	(17.4)	
Three more	28	(4.5)	34	(5.7)	
Four or five more	5	(0.7)	13	(2.1)	
Don't know / as many as God allows	28	(4.4)	69	(11.3)	
Confidence in choosing the number of children you will have in the future					<.01
Not at all / a little / somewhat confident	98	(14.9)	145	(25.8)	
Mostly confident	164	(23.9)	154	(25.6)	
Total confident	421	(61.2)	283	(48.5)	
Future pregnancy wantedness in the next 12 months					<.01
Want to get pregnant	68	(10.0)	98	(16.3)	
Ambivalent	33	(4.9)	33	(5.7)	
Don't want to get pregnant	483	(71.1)	248	(42.1)	
Subsequent birth or pregnancy	94	(14.0)	207	(36.0)	
Seen a health care worker for birth control since target birth					<.01
Yes	488	(72.9)	251	(42.8)	
No	192	(27.1)	345	(57.2)	
Age at delivery (years)					0.04
mean ± standard deviation	26.1	±5.4	26.1	±5.6	
18-19	73	(11.7)	42	(8.0)	
20-24	236	(36.2)	243	(42.4)	
25-29	199	(27.2)	171	(27.4)	
30-34	118	(17.1)	88	(13.8)	
>34	60	(7.8)	62	(8.4)	
Counseling or information about getting sterilized					<.01
Yes	153	(22.1)	53	(8.4)	
No	527	(77.9)	542	(91.6)	
Problem getting birth control if needed					<.01
Big Problem/Small Problem	139	(20.7)	154	(27.4)	
Not a problem	533	(79.3)	428	(72.6)	
Living situation at time of survey					0.04
Married / living with partner	541	(79.0)	464	(78.0)	
Single / divorced / separated	141	(21.0)	129	(22.0)	
It is best to plan ahead for a pregnancy by using birth control					<.01
Agree	593	(87.7)	425	(72.7)	
Neither	67	(10.0)	123	(21.7)	
Disagree	16	(2.3)	33	(5.5)	
Job status at time of survey					<.01
Working full-time	210	(31.1)	154	(26.4)	
Working part-time	190	(27.8)	132	(22.5)	
Unemployed	42	(6.2)	52	(9.2)	
Student only	31	(4.5)	33	(5.3)	
Homemaker only	209	(30.5)	219	(36.6)	
Target prenancy intention					<.01
Trying to get pregnant	169	(24.4)	157	(25.4)	
Ambivalent	185	(27.8)	208	(34.7)	
Trying to keep from getting pregnant	327	(47.9)	236	(39.9)	

* Significant differences were determined using the chi-square test for categorical variables.

†Percentage weighted for survey non-response and exclude missing observations for survey variables.

Highly Effective Family Planning Methods

Many women use family planning methods, including highly effective methods, independent of TAKE CHARGE eligibility status. We identified factors associated with a recently pregnant woman's use of a highly effective family planning method. Table 15 compares characteristics of women who used a highly effective method two years after giving birth to those of women who did not use a highly effective method.

Women using highly effective methods wanted to prevent pregnancy and were confident they could control the number of children they had in the future. Among highly effective method users, 71.1% did not want to get pregnant in the next twelve months. Moreover, 53.6% said they did not want to have *any* more children. The majority (61.2%) of women using a highly effective method were totally confident they could choose the number of children they had in the future compared to 48.5% of women not using a highly effective method.

Other independent variables associated with using a highly effective method during the last two months included using birth control when becoming pregnant with the target birth, working full-time or part-time at the time of the survey, having one or more prior births, seeing a health care provider for birth control, and receiving counseling or information about sterilization near the time of the target birth.

Table 16. Factors associated with using a Highly Effective FP Method

Independent Factor	OR* (95% CI)
Seen a health care worker for birth control since birth	5.92 (4.30, 8.14)
Received counseling or information about sterilization	2.79 (1.77, 4.41)
Age 18-19 vs. 25-29	2.78 (1.53, 5.03)
Desire no more children in the future vs. more children	2.39 (1.70, 3.37)
Don't want to get pregnant in the next 12 months vs. want to get pregnant	2.36 (1.50, 3.70)
Totally confident in choosing future number of children vs. somewhat to not at all confident	1.90 (1.27, 2.83)
Married/partner vs. single	1.86 (1.29, 2.69)
Not a problem getting birth control if needed vs. problem getting birth control	1.67 (1.19, 2.35)

*Odds ratio adjusted for all variables listed in the model.

Highly effective method use was most strongly associated with seeing a health care worker for birth control (OR=5.9 after adjusting for age, desire for more children, living situation, employment status, and agreeing that it is best to plan ahead for pregnancy by using birth control). This association may be significant because women must see a health care worker to receive highly effective methods since those methods are available by prescription only.

Table 17. Effectiveness of Reported Family Planning Method Used in the Past Two Months and Subsequent Pregnancy

			Subsequent Pregnancy/Birth	
FP Method Past Two Months	n	%*	n	%*
Highly Effective	686	53.1%	94	13.9%
Less Effective	304	23.5%	83	28.3%
None	208	16.1%	106	51.2%
Abstinent/No Sex	94	7.3%	18	19.4%
Total	1292	100.0%	301	26.0%

*Percentage weighted for survey non-response.

More than half (51.2%) the women using no method in the past two months had a subsequent birth or pregnancy since the birth that qualified them for this study. Women without a subsequent birth or pregnancy were 3.3 times more likely to use a highly effective method during the last two months than women with a subsequent birth or pregnancy. The next section explores additional factors associated with a subsequent birth or pregnancy.

SUBSEQUENT PREGNANCY AND BIRTH

Since 1995, S women have demonstrated higher subsequent birth rates within two years of delivery than Non-Medicaid and Non-Citizen women. TANF women have the highest subsequent birth rate; of TANF women who gave birth in 2003, 16.4% had another birth within two years of the initial birth. During this same time period, S Women had a slightly lower rate (12.8%), followed by Non-Medicaid (11.8%) and Non-Citizen (11.0%).

Within 33 months after delivery (prior to March 2008), 23.6% of respondents had a subsequent birth record in FSDB or were pregnant at the time of the survey. Women who had a subsequent birth or pregnancy differed from those who did not in several areas: age, parity, pregnancy intention for target birth, use of birth control at the time of target pregnancy, effect of health insurance on their decision to have the baby born in 2005, and agreement that it is best to plan ahead for pregnancy using birth control. Characteristics present at the time of the survey, such as wanting more children, living situation, employment status, effectiveness of birth control method during the past two months, and health status, differed between these two groups (Table 17).

- A larger proportion (29.8%) of women under age 25 at the time of the target birth had a subsequent birth or pregnancy than women older than age 25 (17.6%).
- At the time of the survey, over half (50.2%) the women with a subsequent birth or pregnancy reported that they were homemakers exclusively.
- The majority of women who had a subsequent birth or pregnancy were either married or living with a partner (87.3%). Among women without a subsequent birth, 74.4% were married or living with a partner, and 24.7% were single (divorced, separated, or never married).

Table 18. Subsequent Pregnancy/Birth versus No Subsequent Pregnancy/Birth

Characteristic	Sub. Preg/Birth n=301	(%)†	No Sub. Preg/Birth n=991	(%)†	p*
Age at delivery (years)					<.01
mean ± SD	24.1	±16.1	26.3	±19.5	
18-19	34	(12.6)	81	(9.1)	
20-24	143	(49.3)	336	(35.9)	
25-29	82	(25.5)	288	(27.8)	
30-34	28	(8.7)	178	(17.7)	
> 34	14	(3.8)	108	(9.4)	
Number of live births at time of survey					<.01
median	1		2		
One	139	(47.5)	351	(36.0)	
Two	76	(25.4)	291	(30.0)	
Three	39	(11.9)	180	(17.8)	
Four or more	29	(9.3)	119	(11.5)	
Unknown	18	(5.9)	50	(4.7)	
Pregnancy Intention 3 months before getting pregnant with target birth					0.04
Trying to get pregnant	85	(27.6)	241	(23.8)	
Wasn't trying to get pregnant or trying to keep from getting pregnant	102	(34.0)	291	(29.8)	
Trying to keep from getting pregnant, but not trying very hard	78	(26.3)	275	(28.3)	
Trying hard to keep from getting pregnant	35	(11.6)	175	(17.4)	
Did having health insurance affect your decision to have target baby?					<.01
A lot	48	(15.7)	214	(21.4)	
Some	98	(32.9)	371	(38.1)	
Not at all	150	(51.4)	396	(40.5)	
Current Living Situation at time of survey					<.01
Married/Living with Partner	264	(87.3)	741	(74.4)	
Single/Divorced/Separated	32	(10.9)	238	(24.4)	
Current employment status at time of survey					<.01
Full time	49	(17.2)	315	(32.5)	
Part time	56	(19.9)	266	(27.0)	
Unemployed/laid off	23	(8.0)	71	(7.4)	
Student	15	(4.7)	49	(4.9)	
Homemaker	150	(50.2)	278	(28.1)	
It's best to plan ahead for a pregnancy by using birth control					<.01
Agree	209	(70.6)	809	(84.1)	
Neither agree nor disagree	70	(24.2)	120	(12.6)	
Disagree	16	(5.2)	33	(3.3)	
Doing something to keep from getting pregnant with target birth?					0.01
Yes	106	(36.1)	442	(45.2)	
No	193	(63.9)	534	(54.8)	
Desire more children in the future at time of survey?					<.01
Yes	193	(71.9)	458	(50.2)	
No	78	(28.1)	466	(49.8)	
Overall health status at time of survey					<.01
Excellent	86	(28.7)	184	(18.8)	
Very good	117	(39.7)	333	(34.1)	
Good	77	(25.7)	330	(34.2)	
Fair/Poor	18	(5.9)	124	(12.9)	
Birth Control Method within 2 months of survey					<.01
Abstinent/No Sex	18	(5.9)	76	(7.6)	
None	106	(34.7)	101	(10.1)	
Less Effective Method	83	(28.0)	221	(21.9)	
Highly Effective Method	94	(31.4)	592	(60.4)	
If you needed birth control, would getting it be a problem?					0.01
Big Problem/Small Problem	52	(18.2)	241	(25.5)	
Not a problem	242	(81.8)	719	(74.5)	

*Significant differences between respondents who had a subsequent birth/pregnancy and those who did not have a subsequent birth/pregnancy determined using chi-square test for categorical variables or two sample t-test for equal means for maternal age as a continuous variable.

†Percentage weighted for survey non-response.

Table 19. Factors Associated with Subsequent Birth/Pregnancy

Independent Factor	OR* (95% CI)
Family Planning Method Used During Past Two Months	
None vs. highly effective	6.13 (3.84, 9.77)
Abstinent/no sex vs. highly effective method	3.24 (1.52, 6.90)
Less effective method vs. highly effective method	2.60 (1.70, 3.98)
Overall Health	
Excellent vs. fair/poor	4.98 (2.19, 11.33)
Very good vs. fair/poor	3.73 (1.72, 8.11)
Good vs. fair/poor	2.43 (1.11, 5.36)
Homemaker only vs. employed full-time	3.15 (1.94, 5.13)
Education at Delivery	
No HS diploma vs. BA degree or more	2.44 (1.13, 5.29)
Some college vs. BA degree or more	2.18 (1.16, 4.12)
Married/living with partner vs. single	2.20 (1.26, 3.85)
Decision to have baby not at all influenced by health insurance vs. a lot	1.90 (1.17, 3.06)
Desire having more children in the future vs. having no more children	1.64 (1.09, 2.48)
Age 30-34 at delivery vs. 25-29	0.46 (0.24, 0.89)

*Odds ratio adjusted for all variables in the model.

The strongest risk factors for a subsequent birth were use of no family planning method, excellent health status, and being a stay-at-home mom. Older age (mothers 30 – 34 years old at delivery) reduced the risk of a subsequent birth.

- The rate of subsequent birth or pregnancy was 6.13 times greater for women using no birth control, 2.60 times greater for women using a less effective method, and 3.24 times greater for women who were abstinent during the past two months compared to women using a highly effective method, after adjusting for all other variables in the model.
- The rate of subsequent birth or pregnancy was 4.98 times greater for women reporting excellent overall health status, 3.73 times greater for women reporting very good overall health status, and 2.43 times greater for women reporting good overall health status compared to women reporting fair or poor health status, after adjusting for all other variables.
- The rate of subsequent birth or pregnancy was 3.15 times higher among women who were exclusively homemakers compared to women who were employed full-time, after adjusting for all other variables.

DISCUSSION

Survey findings provide great detail about the characteristics of S women who did and did not use family planning services. In addition, the surveys inform us about broader issues, including lack of health insurance and the role of stay-at-home moms.

The Washington State Population Survey (SPS) conducted by the Office of Financial Management estimates that 21.6% of women age 18 – 44 with family incomes between 100 and 200% of the FPL were uninsured, with 59.6% having employer-based, individual, military, or other private insurance and 18.8% having publicly-funded health insurance. More than half (54%) our respondents were uninsured prior to pregnancy and only 33.5% had private insurance. Two years later, more than one-third of S Women (35%) were uninsured. These large differences are consistent with characteristics of our survey sample: by surveying women who became Medicaid-eligible because of pregnancy, women who were uninsured prior to pregnancy are over-represented. It is also possible that women who become Medicaid-eligible because of pregnancy differ in other ways from the statewide sample in the SPS. While few (7%) children whose birth qualified our respondents to be in our survey were uninsured at age two, their mothers expressed special concerns about their own lack of health insurance. In open-ended comments, numerous mothers addressed this issue: "*So is there hope for single mothers like myself to get Health Insurance that we can afford or get assistance?*" and "*After my children are both in school and I start working again, then I will hopefully have medical again. For now, I'm living on the edge*."

Our survey also highlights characteristics of women whose primary occupation was homemaker (stay-at-home moms). The proportion of respondents whose primary occupation was homemaker increased from 23.1% prior to pregnancy to 33.3% two years later. The most frequent reason cited in the SPS for respondents not working in the previous two weeks was taking care of family and home. The need to stay at home to care for family members thus contributes to the lack of health insurance in this group, since employer-based coverage is the most frequent source of health insurance in this age group. Women who reported their pre-pregnancy work status as homemaker were less likely to receive subsequent Medicaid-paid family planning services, and women whose work status two years after delivery was homemaker accounted for half (50.2%) of the women with a subsequent birth or pregnancy. In a multivariate model, women whose work status was homemaker were more than three times (OR=3.15) more likely to have a subsequent birth or pregnancy compared to women who were employed full-time. In the same model, using no birth control method during the past two months was most strongly associated with a subsequent birth or pregnancy (OR=6.13).

While more single women received Medicaid-paid family planning services (57.3% of single women compared to 52% of married women), the proportion who received family planning services was much higher for younger married women than for older married women (81.5% for 18 – 19 year olds compared to 32.3% for women older than 34). The use of family planning services among single women did not vary by age. The striking differences among married women remained significant in a multivariate model that controlled for educational attainment, employment, and other variables. The significance of age *per se* could be related to other factors not measured by our survey. The differences might reflect generational changes in values or

attitudes about child-bearing. Older women might be less likely to receive family planning methods because they seek to complete their families by having additional children without delay. It is also possible that younger women are more likely to receive Medicaid-paid family planning services because their incomes are lower and so they depend on publicly-financed family planning to a greater extent than older women.

On the other hand, the use of a highly effective family planning method was only modestly greater among those women who received Medicaid-paid family planning services (58.9%) compared to women who did not (47.2%). This suggests that some women who desire highly effective family planning methods will acquire them, whether or not they have coverage through Medicaid or TAKE CHARGE. The survey did not ask women where they had received their family planning method if it was not through Medicaid or TAKE CHARGE.

Ambivalence about pregnancy intention was more frequent among married women and those living with a partner than among single or divorced women. Nearly 90% of single or divorced women either did not want to get pregnant or *really* did not want to get pregnant in the next year; less than 10% were ambivalent (kind of wanted to get pregnant and kind of didn't want to get pregnant, or didn't care one way or the other if she got pregnant). Among married women and those living with a partner, 72% either did not want to get pregnant or *really* did not want to get pregnant, and 14.5% were ambivalent.

While future pregnancy intention corresponded in a general way to the effectiveness of the family planning method used at the time of the survey, more than half (57.6%) of the women who wanted to get pregnant in the next year reported using some family planning method. This apparent inconsistency could be related to timing; the respondent might want to get pregnant within the next year but not at the time of the survey. It is also possible that these differences reflect the incongruity between desires and behavior; although the respondents may desire to get pregnant (in the future), they may nevertheless take action to prevent pregnancy.

The survey findings also highlight more general characteristics of potential target groups for greater use of highly effective family planning methods: single women; younger women (single or married); women who agree that it is best to plan ahead for pregnancy by using birth control methods; and women whose hopes and dreams do not include having more children. With well established enhanced prenatal care services including Maternity Support Services and a CSO-based family planning program, Washington is well positioned to develop targeted interventions to reach more recently pregnant women through our family planning waiver.

CONCLUSION

Recently pregnant women who responded to our survey informed us of the wide range of circumstances they experience and the diversity of their attitudes and beliefs. Generally speaking, these women expressed gratitude for the maternity services they received with Medicaid coverage and the family planning services that some of them received through TAKE CHARGE. A small minority disapproved of family planning services in general and for single women in particular. Nevertheless, the majority of respondents (80.9%) agreed or strongly agreed that "It is best to plan ahead for a pregnancy by using birth control methods." Just 3.8% of respondents disagreed or strongly disagreed with that statement, and an additional 15.4% neither agreed nor disagreed.

Within 33 months of the pregnancy that qualified the respondents for this study, nearly one-quarter (23.6%) had a subsequent birth or said they were currently pregnant at the time of the survey. Of those who reported being pregnant at the time of the survey, just over half (52.9%) were trying to get pregnant, and 47.1% said they were not trying to get pregnant.

More than three-fourths (75.6%) of the women without a subsequent birth or pregnancy stated that either they did not want to get pregnant or really did not want to get pregnant during the next twelve months. However, only 66.1% of these women were using a highly effective birth control method. Over ten percent (10.5%) were abstinent, and nearly one-fourth (23.4%) were using no birth control method or a less effective method. These women, who did not want or really did not want to get pregnant and were using no birth control method or a less effective method, represent a critical target group for the TAKE CHARGE program.

Despite numerous mailings from HRSA, postpartum medical appointments, and counseling about family planning and/or birth control, nearly half (47.1%) of the respondents were unfamiliar with the name of Washington's family planning waiver (TAKE CHARGE), and almost one-quarter (24.1%) were unaware that their family planning would be covered by Medicaid for one year after the birth of their baby. Although nearly half of the S women overall received one or more medical family planning service or services through the TAKE CHARGE program according to claims data, 47.2% of survey respondents who had no paid claims for family planning services reported using a highly effective birth control method. While it is reassuring that these women reported using highly effective birth control methods, and some were certainly using long-acting methods that did not require medical follow-up to remain effective (tubal ligation and IUD), as many as 44.3% were using less effective methods or no birth control at all. In addition to those women, 35.2% of the women who had paid claims for family planning services were also using less effective methods or no birth control at all.

These data underscore the challenges in informing and educating clients about the services covered by Medicaid and the family planning waiver. Maternity Support Services providers serve more than 70% of pregnant Medicaid clients and are responsible for counseling clients about family planning services before and after delivery. Although Washington has stationed family planning nurses in the majority of welfare offices (CSOs) across the state, S women may have no need to visit their CSO around the time of delivery.

Opportunities exist to present a stronger and more consistent message to pregnant women about the importance and availability of birth control methods to plan the timing of their next pregnancy if they seek to have more children or to prevent pregnancy, if that is their desire.

During the time of highest enrollment in TAKE CHARGE, unintended pregnancy rates among S women declined. However, as TAKE CHARGE enrollment decreased from July 2006 through June 2009, the unintended pregnancy rates increased, to levels just below those before TAKE CHARGE. Deliveries to S women increased slightly each year from 2001 to 2005 and then began a period of more rapid increase. S women remain the single largest group of pregnant women on Medicaid, exceeding both women on TANF and Non-citizens.

Understanding the reasons for the decline in TAKE CHARGE enrollment from July 2006 through June 2009 and addressing these reasons with appropriate interventions are critical for regaining the progress that had been achieved in reducing unintended pregnancy among Medicaid women in Washington.

BIBLIOGRAPHY

Bronstein JM, Vosel A, Georsel SK, Freeman C, Payne LA. (2007). Extending Medicaid Coverage for Family Planning Services: Alabama's First Four Years. *Public Health Reports, 122* (2): 190-197.

Cawthon L, Keenan-Wilkie T, Lyons D, Rust K. (2006). *TAKE CHARGE Final Evaluation – First Five Years: July 2001 – June 2006*. Olympia, WA: Research and Data Analysis Report Number 9.83.

DePiñeres T, Blumenthal PD, Diener-West M. (2005). Postpartum Contraception: The New Mexico Pregnancy Risk Assessment Monitoring System. *Contraception, 72*: 422-425.

Edwards J, Bronstein J, Adams K. (2003). Evaluation of Medicaid Family Planning Demonstrations. The CNA Corporation, CMS Contract No. 752-2-415921.

Gold RB. (2004). Doing More for Less: Study Says State Medicaid Family Planning Expansions Are Cost-Effective. *The Guttmacher Report on Public Policy, March*: 1-2, 14.

Jacoby M, Gorenflo D, Black E, Wunderlich C, Eyler AE. (1999). Rapid Repeat Pregnancy and Experiences of Interpersonal Violence among Low-Income Adolescents. *American Journal of Preventive Medicine, 16* (4): 318-321.

Johnson FC and Johnson MR. (1980). Family Planning: Implications for Marital Stability. *Journal of Divorce, 3*: 273-281.

King JC. (2003). The Risk of Maternal Nutritional Depletion and Poor Outcomes Increases in Early of Closely Spaced Pregnancies. *Journal of Nutrition, 133* (Supp 2): 1732S-1736S.

Lindrooth RC and McCullough JS. (2007). The Effect of Medicaid Family Planning Expansions on Unplanned Births. *Women's Health Issues, 17* (2): 66-74.

Miller VL, Laken MA, Ager J, Essenmacher L. (2000). Contraceptive Decision Making among Medicaid-eligible Women. *Journal of Community Health, 25* (6): 473-480.

Ritualo AR, Cawthon L, Keenan-Wilkie T, Weaver L. (2003). *TAKE CHARGE: Process Evaluation*. Olympia, WA: Research and Data Analysis Report Number 9.69.

Social & Economic Sciences Research Center. (2007). TAKE CHARGE Evaluation: A Survey of Recently Pregnant Women Data Report 07-42. Washington State University, Pullman: Social & Economic Sciences Research Center.

State Health Access Data Assistance Center [SHADAC] and The Urban Institute. (2006). Shifting Ground: Changes in Employer-Sponsored health Insurance. Available: http://covertheuninsured.org/media/research/ShiftingGround0506.pdf (accessed May 9, 2006).

Zhu B-P, Rolfs RT, Nangle BE, Horan JM. (1999). Effect of the Interval between Pregnancies on Perinatal Outcomes. *New England Journal of Medicine, 340*: 589-594.

APPENDICES

PLEASE PROMPTLY RETURN THIS SURVEY IN THE ATTACHED POSTAGE-PAID ENVELOPE

TAKE CHARGE Evaluation:
A Survey of Recently Pregnant Women

Your comments on this program are important to us. Please help us by answering the following questions. Your answers will be kept strictly confidential.

Sponsored by:

Department of Social & Health Services
Research and Data Analysis
PO Box 45204
Olympia, WA 98504

Conducted by:

Social & Economic Sciences Research Center
Washington State University
PO Box 641801
Pullman, WA 99164-1801

1. We would like to confirm the information we have. You had a baby in March or April 2005. Is that correct?

- ☐1 Yes
- ☐2 No → If no, you do not have to complete the rest of this survey. Please mail the survey back to us in the postage-paid envelope and we will remove your name from our survey list. Thank you for your time.

2. What is your baby's date of birth?

_____ / _____ / 2005 (Month/Day/Year)

We have some questions for you about your experiences before, during, and after your pregnancy. Please answer these questions only for your pregnancy in 2005.

First, we would like to know more about you during the month or so *before* you got pregnant in 2005.

3. *Just before* you got pregnant, what was your job status? (Check *all* that apply.)

- ☐1 Working part time (less than 40 hours per week)
- ☐2 Working full time (40 hours per week or more)
- ☐3 Unemployed, not looking for work
- ☐4 Unemployed but looking for work
- ☐5 Temporarily laid off, on sick or other leave
- ☐6 Homemaker or stay-at-home mom
- ☐7 Full-time student
- ☐8 Other

4. *Just before* you got pregnant, did you have health insurance other than Medicaid?

- ☐1 Yes → **Go to Question 7**
- ☐2 No

5. *Just before* you got pregnant, were you on Medicaid, Healthy Options, or medical coupon?

- ☐1 Yes → **Go to Question 7**
- ☐2 No

6. How long did you go without health insurance *before* you became pregnant?

- ☐1 Less than one month
- ☐2 _____ months

7. Which of the following statements best describes you during the *3 months before* you got pregnant?

- ☐1 I was trying to get pregnant.
- ☐2 I wasn't trying to get pregnant or trying to keep from getting pregnant.
- ☐3 I was trying to keep from getting pregnant but was not trying very hard.
- ☐4 I was trying hard to keep from getting pregnant.

8. How much did having or not having health insurance affect your decision to have a baby?

- ☐1 A lot (For example, I would not have had a baby without health insurance.)
- ☐2 Some (For example, I was concerned about insurance but it didn't affect my/our decision.)
- ☐3 Not at all (For example, I didn't really think about it.)

9. How much did your (or your family's) finances affect your decision to have a baby?

- ☐1 A lot (For example, I would not have had a baby if I/we couldn't afford it.)
- ☐2 Some (For example, I was concerned about money but I/we really wanted this baby.)
- ☐3 Not at all (For example, I didn't really think about it.)

10. When you got pregnant, were you, your husband, or partner doing anything to keep from getting pregnant? (*Some things people do to keep from getting pregnant include not having sex at certain times or withdrawal, and using birth control methods such as the pill, condoms, cervical ring, IUD, having their tubes tied, or their partner having a vasectomy.*)

- ☐1 Yes → **Go to Question 12**
- ☐2 No

11. What were your reasons for *not* using any birth control? (Check *all* that apply.)

- ☐ I wanted to get pregnant.
- ☐ I didn't mind if I got pregnant.
- ☐ I thought I could not get pregnant at that time.
- ☐ I had side effects from the birth control method I had been using.
- ☐ I had problems getting birth control when I needed it.
- ☐ I thought my husband, partner, or I was sterile (vasectomy or tubes tied).
- ☐ My husband or partner didn't want to use anything.
- ☐ Using birth control is against my (or my partner's) personal beliefs.
- ☐ Other (Please tell us): _____

The following questions are about the time *during* and *just after* your pregnancy in 2005.

12. How long did you go without health insurance *during* your pregnancy?

- ☐1 I was insured the *entire* time I was pregnant → **Go to Question 14**
- ☐2 Less than one month
- ☐3 _____ months

13. Why weren't you covered by health insurance? (Check *all* that apply.)

- ☐ Person in family with health insurance lost job or changed employers
- ☐ Got divorced or separated from husband or partner
- ☐ Death of husband or partner
- ☐ Employer does not offer coverage/not eligible for coverage
- ☐ Cost is too high
- ☐ Insurance company refused coverage
- ☐ Other (Please tell us): _____

14. Did *you* lose a job while you were pregnant?

- ☐1 Yes
- ☐2 No
- ☐3 Not applicable (I didn't work during my pregnancy)

15. Did *your partner* lose a job while you were pregnant?

- ☐1 Yes
- ☐2 No
- ☐3 Not applicable (I didn't have a partner or he didn't have a job)

16. Did you *ever* breastfeed or pump breast milk to feed your baby?

- ☐1 Yes
- ☐2 No → **Go to Question 18**

17. How old was your baby when you started feeding [him/her] something *other* than breast milk? (It may help to look at a calendar.)

_____ months

18. After your baby was born, did you have a postpartum checkup for yourself? (*A postpartum checkup is the regular checkup a woman has after she gives birth.*)

- ☐1 Yes
- ☐2 No

19. In the few weeks before or after your baby was born, did a doctor, nurse, or other health care worker talk with you about family planning or using birth control?

- ☐1 Yes
- ☐2 No

20. In the few weeks *before or after* your baby was born, did you receive any of the following? (Check *all* that apply.)

- ☐ An over-the-counter (non-prescription) birth control method
- ☐ A prescription for a birth control method
- ☐ A check-up or medical test related to using birth control
- ☐ Counseling or information about birth control
- ☐ Counseling or information about getting sterilized
- ☐ Emergency contraception ("morning after pill")
- ☐ A pregnancy test
- ☐ An abortion

21. In the few weeks before or after your baby was born, how aware were you that your family planning and birth control would be covered by Medicaid for one year after your baby was born?

- ☐1 Very aware
- ☐2 Somewhat aware
- ☐3 Not aware

22. Since your baby was born, have you ever gone to a doctor, nurse, or other health care worker for birth control?

- ☐1 Yes → **Go to Question 24**
- ☐2 No

23. What are the reasons you have *not* seen a health care provider for birth control or other family planning services since your baby was born? (Check *all* that apply.)

- ☐ I am not having sex.
- ☐ I use over-the-counter birth control (such as condoms).
- ☐ I use natural family planning methods (for example, rhythm method).
- ☐ I want to get pregnant again.
- ☐ I do not mind if I get pregnant.
- ☐ I am or my husband or partner is sterile (vasectomy or tubes tied).
- ☐ I don't have health insurance to pay for it.
- ☐ I don't have the time.
- ☐ Using birth control is against my (or my partner's) personal beliefs.
- ☐ Other (Please tell us): _____

The following questions ask about your situation in the *recent past*, *now*, and in the *future*.

24. What is your *current* living situation?

- ☐1 Married
- ☐2 Not married but living with a partner
- ☐3 Divorced
- ☐4 Widowed
- ☐5 Separated from spouse
- ☐6 Never married and not living with a partner

25. What is your *current* job status? (Check *all* that apply.)

- ☐ Working now, part time (less than 40 hours per week)
- ☐ Working now, full time (40 hours or more per week)
- ☐ Unemployed, not looking for work
- ☐ Unemployed but looking for work
- ☐ Temporarily laid off, on sick or other leave
- ☐ Homemaker or stay-at-home mom
- ☐ Full-time student
- ☐ Other (Please tell us): _____

Go to Question 27

26. How long have you been working at your *current* job(s)?

- ☐1 Less than 6 months
- ☐2 Between 6 months and 1 year
- ☐3 More than 1 year

27. What is your husband's or partner's *current* job status? (Check *all* that apply.)

- ☐ Working now, part time (less than 40 hours per week)
- ☐ Working now, full time (40 hours or more per week)
- ☐ Unemployed, not looking for work
- ☐ Unemployed but looking for work
- ☐ Temporarily laid off, on sick or other leave
- ☐ Homemaker or stay-at-home dad
- ☐ Full-time student
- ☐ Not applicable (no husband or partner)
- ☐ Other (Please tell us): _____

28. What type of health insurance do you have *now*? (Check *all* that apply.)

- ☐ I don't currently have insurance
- ☐ Medicaid, Healthy Options, or medical coupon
- ☐ A private insurance plan from an employer
- ☐ A private insurance plan *not* from an employer
- ☐ State-sponsored health plan (such as Basic Health Plan)
- ☐ Military health care
- ☐ Other (Please tell us): _____

Go to Question 31

29. How long have you been uninsured?

_____ months

30. Why aren't you covered by health insurance? (Check *all* that apply.)

- ☐ Person in family with health insurance lost job or changed employers
- ☐ Got divorced or separated from husband or partner
- ☐ Death of husband or partner
- ☐ Employer does not offer coverage/not eligible for coverage
- ☐ Cost is too high
- ☐ Insurance company refused coverage
- ☐ Lost Medicaid insurance coverage
- ☐ Other (Please tell us): _____

31. What type of health insurance do you have for your baby born in 2005? (Check *all* that apply.)

- ☐ My baby doesn't currently have insurance
- ☐ Medicaid, Healthy Options, or medical coupon
- ☐ A private insurance plan from an employer
- ☐ A private insurance plan *not* from an employer
- ☐ State-sponsored health plan (such as Basic Health Plan)
- ☐ Military health care
- ☐ Other (Please tell us): _____

32. How many children do you have now living full-time in your household?

_____ children

33. How many children do you hope to have some day, including your baby born in 2005?

_____ children

34. Is your husband or partner supportive of your goals for having (or not having) children?

- ☐1 Yes
- ☐2 No
- ☐3 Not applicable (No husband or partner)

35. How confident are you that you can choose the number of children you will have *in the future*, including not having any more children?

- ☐1 Not at all confident
- ☐2 A little confident
- ☐3 Somewhat confident
- ☐4 Mostly confident
- ☐5 Totally confident

36. Which of the following statements best describes what you want to happen during the *next 12 months*? (Check only *one*.)

- ☐1 I *want* to get pregnant during the next 12 months.
- ☐2 I kind of want to get pregnant.
- ☐3 I don't care one way or the other if I get pregnant.
- ☐4 I do not want to get pregnant.
- ☐5 I *really do not* want to get pregnant during the next 12 months.

37. Are you pregnant *now*?

- ☐1 Yes
- ☐2 No → **Go to Question 39**
- ☐3 Unsure → **Go to Question 39**

38. Were you trying to get pregnant?

- ☐1 Yes
- ☐2 No

39. *During the last 2 months*, what kinds of birth control did you and your partner(s) use when you had sex? (Check *all* that apply.)

- ☐ No sex during the last 2 months (abstinent)
- ☐ None: we did not use *any* method
- ☐ Birth control pills
- ☐ Condoms, female
- ☐ Condoms, male
- ☐ Diaphragm, cervical cap
- ☐ Emergency contraception ("morning after") pills
- ☐ Foam, cream, jelly
- ☐ IUD (intrauterine device)
- ☐ Norplant® implant
- ☐ Patch—Ortho Evra®
- ☐ Natural family planning (for example, rhythm method)
- ☐ Ring—NuvaRing®
- ☐ Shot—Depo Provera® or Lunelle®
- ☐ Sterilization, female (tubes tied)
- ☐ Sterilization, male (vasectomy)
- ☐ Withdrawal ("pulling out")
- ☐ Other (Please tell us): _____

40. How much of a problem would it be for you to get birth control if you needed it?

- ☐1 A big problem
- ☐2 A small problem
- ☐3 Not a problem

41. Have you heard about the TAKE CHARGE program that provides family planning services and birth control at no cost to many women in Washington State?

- ☐1 Yes → **Go to Question 42**
- ☐2 No

If you would like information on TAKE CHARGE, a program that provides birth control at no cost to many Washington women, call the Family Planning Hotline toll-free at 1-800-770-4334

Now we would like to know more about your opinions. Please tell us how much you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the following statement about family life.

42. It is best to plan ahead for a pregnancy by using birth control methods.

- ☐1 Strongly agree
- ☐2 Agree
- ☐3 Neither agree nor disagree
- ☐4 Disagree
- ☐5 Strongly disagree

For each situation listed below, please tell us whether you would be *very upset*, *a little upset*, *a little pleased*, *very pleased*, or that you *wouldn't care*.

43. How would you feel if you got pregnant *in the next year*?

- ☐1 Very upset
- ☐2 A little upset
- ☐3 A little pleased
- ☐4 Very pleased
- ☐5 I wouldn't care

44. How would you feel if you got pregnant *now*? (*If you are already pregnant or have had another baby since 2005, how do you feel about it?*)

- ☐1 Very upset
- ☐2 A little upset
- ☐3 A little pleased
- ☐4 Very pleased
- ☐5 I wouldn't care

45. How would you feel if you did not have any more children?

- ☐1 Very upset
- ☐2 A little upset
- ☐3 A little pleased
- ☐4 Very pleased
- ☐5 I wouldn't care

Finally, we'd like to know a little bit more about you.

46. What is your date of birth?

_____ / _____ / 19____ (Month/Day/Year)

47. What is the highest grade or level of school that you have completed?

- ☐1 8th grade or less
- ☐2 Some high school, but did not graduate
- ☐3 High school graduate or GED
- ☐4 Some college, 2-year degree, or technical school
- ☐5 4-year college graduate
- ☐6 More than 4-year college degree

48. Are you of Hispanic or Latina origin or descent?

- ☐1 Yes
- ☐2 No

49. What is your race? (Check *all* that apply.)

- ☐ White
- ☐ Black or African American
- ☐ Asian American
- ☐ Native Hawaiian or other Pacific Islander
- ☐ American Indian or Alaska Native
- ☐ Other (Please tell us): _____

50. Including your pregnancy in 2005, how many times have you *been pregnant* in your life?

_____ times

51. Including the birth of your baby in 2005, how many times have you *given birth* in your life?

_____ times

52. How would you rate your overall health *now*?

- ☐1 Excellent
- ☐2 Very Good
- ☐3 Good
- ☐4 Fair
- ☐5 Poor

53. What is your *monthly* total family income from all sources? Include money from jobs and government assistance for all family members who live with you. Please tell us your best guess.

- ☐1 $500 or less
- ☐2 $501–999
- ☐3 $1,000–1,499
- ☐4 $1,500–1,999
- ☐5 $2,000–2,499
- ☐6 $2,500–2,999
- ☐7 $3,000–3,499
- ☐8 $3,500 or more

Thank you for taking the time to complete our survey!
If you have any additional comments or questions, please note them in the box below.

If you would like information about the TAKE CHARGE program that provides family planning services and birth control at no cost to many Washington women, call the Family Planning Hotline toll-free at 1-800-770-4334

Please return your questionnaire in the postage-paid envelope provided to:

Social & Economic Sciences Research Center
Washington State University
PO Box 641801
Pullman, WA 99164-1801

APPENDIX B: STUDY OUTCOMES: ODDS RATIO ESTIMATES

Table 1. Factors Associated with Medicaid-paid Family Planning Service Utilization

Independent Variables	Crude OR (95% CI)	Adjusted OR† (95% CI)
Age		
18-19	**1.42 * (0.92 , 2.19)**	
20-24	**1.56 * (1.18 , 2.06)**	
25-29	**0.65 * (0.46 , 0.93)**	
30-34	0.52 (0.34 , 0.81)	
≥ 35	1.00	
Age at delivery among married women		
18-19	**4.47 * (1.62 12.32)**	**3.97 * (1.35 , 11.68)**
20-24	**1.80 * (1.23 2.65)**	**1.74 * (1.15 , 2.65)**
25-29	1.00	1.00
30-34	**0.61 * (0.40 0.95)**	0.66 (0.41 , 1.06)
≥ 35	**0.48 * (0.27 0.85)**	0.54 (0.29 , 1.00)
Education at time of delivery		
No HS diploma	**2.30 * (1.45 , 3.66)**	**2.01 * (1.16 , 3.48)**
HS diploma/GED	**1.88 * (1.24 , 2.86)**	1.57 (0.96 , 2.56)
Some college or AA degree	**1.52 * (1.01 , 2.28)**	1.29 (0.81 , 2.06)
Bachelor's degree or more	1.00	1.00
Employment status prior to pregnancy		
Full time	**2.16 * (1.61 , 2.91)**	**1.82 * (1.29 , 2.58)**
Part time	**1.46 * (1.05 , 2.02)**	1.24 (0.86 , 1.78)
Unemployed/laid off	1.12 (0.67 , 1.87)	0.96 (0.53 , 1.76)
Student	1.28 (0.73 , 2.25)	0.86 (0.46 , 1.62)
Homemaker only	1.00	1.00
Current employment status at time of survey		
Full time	**1.45 * (1.08 , 1.93)**	
Part time	1.01 (0.75 , 1.36)	
Unemployed/laid off	1.45 (0.91 , 2.32)	
Student	0.97 (0.57 , 1.65)	
Homemaker	1.00	
Number of live births		
One	**2.08 * (1.42 , 3.05)**	
Two	**1.58 * (1.06 , 2.34)**	
Three	1.13 (0.73 , 1.74)	
Four or more	1.00	
It's best to plan ahead for a pregnancy using birth control		
Agree	**2.93 * (1.54 , 5.58)**	**2.49 * (1.20 , 5.15)**
Neither agree nor disagree	**2.37 * (1.18 , 4.75)**	1.77 (0.81 , 3.86)
Disagree	1.00	1.00
Level of "trying" 3 months prior to getting pregnant with target birth		
Trying hard to keep from getting pregnant	**1.44 * (1.01 , 2.06)**	
Trying to keep from getting pregnant, but not very hard	**1.37 * (1.00 , 1.87)**	
Wasn't trying to or trying to keep from getting pregnant	1.13 (0.83 , 1.52)	
Trying to get pregnant	1.00	
Doing something to keep from getting pregnant at target birth?		
Yes	**1.27 * (1.01 , 1.59)**	**1.30 * (1.00 , 1.68)**
No	1.00	1.00
Heard of TAKE CHARGE?		
Yes	**1.65 * (1.31 , 2.07)**	**1.64 * (1.27 , 2.10)**
No	1.00	1.00
How aware were you that Medicaid would cover your family planning		
Very aware	**1.34 * (1.01 , 1.77)**	
Somewhat aware	1.08 (0.78 , 1.48)	
Not aware	1.00	
Family planning method used at time of survey		
Highly effective	**1.62 * (1.18 , 2.23)**	
Less effective	1.05 (0.73 , 1.51)	
Abstinent	0.90 (0.54 , 1.49)	
None	1.00	
Respondent or partner has been sterilized		
No	**1.72 * (1.21 , 2.45)**	**1.55 * (1.02 , 2.34)**
Yes	1.00	1.00

*Significant difference in the odds of receiving a Medicaid-paid Program S family planning service compared to the odds of the reference group receiving a family planning service.

†Adjusted OR for all variables in the model and interaction between age and marital status. Final model R^2=0.73 and Hosmer-Lemeshow=0.051.

Table 2. Factors Associated with Highly Effective Method Use in the Past Two Months

Independent Variables	Crude OR	(95% CI)	Adjusted OR*	(95% CI)
Desired number of future childen				
No more	**2.86**	**(2.24 , 3.65)**	**2.39**	**(1.70 , 3.37)**
More	1.00		1.00	
Confidence in choosing future number of childen				
Totally	**2.18**	**(1.61 , 2.96)**	**1.90**	**(1.27 , 2.83)**
Mostly	**1.61**	**(1.14 , 2.28)**	1.35	(0.87 , 2.09)
Somewhat / a little / not at all	1.00		1.00	
Future pregnancy wantedness				
Want to get pregnant	1.00		1.00	
Ambivalent	1.41	(0.78 , 2.56)	1.25	(0.61 , 2.55)
Don't want to get pregnant	**2.76**	**(1.93 , 3.93)**	**2.36**	**(1.50 , 3.70)**
Subsequent birth or pregnancy	**0.63**	**(0.42 , 0.95)**	**0.48**	**(0.30 , 0.79)**
Seen health care worker for birth control since target birth				
Yes	**3.59**	**(2.83 , 4.56)**	**5.92**	**(4.30 , 8.14)**
No	1.00		1.00	
Maternal age at target birth				
18-19	1.47	(0.95 , 2.28)	**2.78**	**(1.53 , 5.03)**
20-24	0.86	(0.65 , 1.13)	1.23	(0.85 , 1.78)
25-29	1.00		1.00	
30-34	1.24	(0.87 , 1.76)	1.31	(0.86 , 2.00)
≥ 35	0.93	(0.61 , 1.41)	0.96	(0.55 , 1.66)
Counseling or information about sterilization				
Yes	**3.11**	**(2.22 , 4.37)**	**2.79**	**(1.77 , 4.41)**
No	1.00		1.00	
Problem getting birth control if needed				
Yes	1.00		1.00	
No	**1.44**	**(1.10 , 1.88)**	**1.67**	**(1.19 , 2.35)**
Living situation at time of survey				
Married / living with partner	1.06	(0.81 , 1.40)	**1.86**	**(1.29 , 2.69)**
Single / divorced / separated	1.00		1.00	
Using birth control before target pregnancy				
Yes	**1.59**	**(1.26 , 2.00)**		
No	1.00			
Received a prescription for a birth control method				
Yes	**1.32**	**(1.05 , 1.66)**		
No	1.00			
Prior live births (recored in FSDB)				
No prior births	1.00			
One or more prior births	**1.58**	**(1.26 , 1.98)**		
Subsequent birth or pregnancy				
Yes	1.00			
No	**3.32**	**(2.51 , 4.39)**		
Post pregnancy extension				
Yes	**1.60**	**(1.27 , 2.00)**		
No	1.00			
Number of children living in household				
One child	1.00			
More than one child	**1.48**	**(1.17 , 1.87)**		
Job status at time of survey				
Working full-time	**1.41**	**(1.06 , 1.88)**		
Working part-time	**1.48**	**(1.10 , 1.99)**		
Unemployed	0.81	(0.51 , 1.28)		
Student only	1.01	(0.59 , 1.72)		
Homemaker only	1.00			

*Odds ratios adjusted for all variables in the final model. Final Model R^2=0.98 and Hosmer-Lemeshow=0.23.

Table 3. Factors Associated with Subsequent Birth or Pregnancy

Independent Variable	Crude OR	95% CI (L, U)	Adjusted OR*	95% CI (L, U)
Age at delivery (years)				
18-19	1.41	(0.87 , 2.29)	1.33	(0.64 , 2.76)
20-24	**1.41**	**(1.01 , 1.96)**	1.53	(0.99 , 2.35)
25-29	1.00		1.00	
30-34	**0.57**	**(0.35 , 0.95)**	**0.46**	**(0.24 , 0.89)**
35 and older	**0.51**	**(0.27 , 0.98)**	0.52	(0.22 , 1.20)
Education at delivery				
Less than high school diploma	1.77	(1.00 , 3.16)	**2.44**	**(1.13 , 5.29)**
High school diploma / GED	1.30	(0.76 , 2.22)	1.50	(0.74 , 3.02)
Some college / AA degree	1.47	(0.87 , 2.48)	**2.18**	**(1.16 , 4.12)**
BA degree or more	1.00		1.00	
Number of live births at time of survey				
One	**1.54**	**(1.01 , 2.37)**		
Two	1.08	(0.68 , 1.72)		
Three	1.00			
Four or more	1.26	(0.70 , 2.26)		
Marital Status at time of the survey				
Married	**1.46**	**(1.10 , 1.94)**		
Single	1.00			
Current Living Situation				
Married/Living with partner	**2.70**	**(1.78 , 4.09)**	**2.20**	**(1.26 , 3.85)**
Single/Divorced/Separated	1.00		1.00	
Current employment status at time of survey				
Working full-time	1.00		1.00	
Working part-time	1.37	(0.89 , 2.12)	1.52	(0.90 , 2.56)
Unemployed	**1.90**	**(1.05 , 3.46)**	1.66	(0.74 , 3.73)
Student only	1.42	(0.67 , 2.99)	1.42	(0.67 , 2.99)
Homemaker only	**3.54**	**(2.41 , 5.19)**	**3.15**	**(1.94 , 5.13)**
Pregnancy Intention 3 months before getting pregnant				
Trying to get pregnant	**1.71**	**(1.07 , 2.72)**		
Wasn't trying or trying to keep from getting pregnant	**1.65**	**(1.05 , 2.60)**		
Trying to keep but not very hard	1.25	(0.78 , 2.00)		
Trying hard to keep from getting pregnant	1.00			
How much did having health insurance affect your decision to have a baby?				
A lot	1.00		1.00	
Some	1.22	(0.81 , 1.84)	1.03	(0.62 , 1.70)
Not at all	**1.86**	**(1.26 , 2.74)**	**1.90**	**(1.17 , 3.06)**
It is best to plan ahead for a pregnancy by using birth control				
Agree	1.00			
Neither	**2.30**	**(1.61 , 3.28)**		
Disagree	**1.92**	**(1.01 , 3.63)**		
Desire more children in the future?				
More	**2.50**	**(1.81 , 3.46)**	**1.64**	**(1.09 , 2.48)**
No more	1.00		1.00	
Doing something to keep from getting pregnant with target birth?				
Yes	1.00			
No	**1.52**	**(1.14 , 2.03)**		
Birth Control Method within 2 months of survey				
Abstinent/No Sex	1.43	(0.80 , 2.54)	**3.24**	**(1.52 , 6.90)**
No method	**6.29**	**(4.33 , 9.12)**	**6.13**	**(3.84 , 9.77)**
Less effective method	**2.35**	**(1.64 , 3.36)**	**2.60**	**(1.70 , 3.98)**
Highly effective method	1.00		1.00	
Overall health status at time of survey				
Excellent	**3.41**	**(1.87 , 6.23)**	**4.98**	**(2.19 , 11.33)**
Very good	**2.47**	**(1.38 , 4.42)**	**3.73**	**(1.72 , 8.11)**
Good	1.67	(0.92 , 3.04)	**2.43**	**(1.11 , 5.36)**
Fair / poor	1.00		1.00	
If you needed birth control, would getting it be a problem?				
Problem	**0.63**	**(0.44 , 0.89)**		
Not a problem	1.00			

*Adjusted OR for all variables in the model. Final model R^2=94.6.

Excludes 153 women with sterilization.

Washington State
Department of Social
& Health Services

RDA Research & Data
Analysis Division

Report Number 9.92