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Decline in Adolescent Female Participation in the Family PACT Program

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EXECUTIVE SUMMARY

Overview of Study

The State of California's Family Planning, Access, Care, and Treatment (Family PACT) Program plays a critical role in increasing access to family planning services for adolescents – defined as clients under age 20. This study examined the eight percent decline in adolescent female participation in Family PACT between fiscal year (FY) 2004-05 and FY 2010-2011, as well as possible factors contributing to this decline. This trend raises concerns about adolescents' ability to access family planning services, as this age group continues to experience higher rates of unintended pregnancies and sexually transmitted infections than other age groups. While California has long been recognized as a leader in teen pregnancy prevention efforts, there remains a high level of unmet need for family planning care among this population.

The study used a mixed-method approach, combining quantitative analysis of Family PACT administrative data and other secondary sources with qualitative interviews with Family PACT providers. Three sets of analyses were undertaken to address the following evaluation questions:

1. Has participation in Family PACT declined within subgroups of adolescent females?
2. How are provider and county characteristics associated with decreased Family PACT participation among adolescent females?
3. What changes in service delivery and outreach practices might explain the decline in Family PACT participation among adolescent females?

Trends in Adolescent Female Family PACT Participation by Subgroup

We used Family PACT administrative data and population estimates to examine trends in adolescent female participation in the program between FY 2004-05 and FY 2010-11. Among all adolescent females, the decline in the number of Family PACT participants outpaced the decline in the number of adolescent females in the population (-8% vs. -1%), resulting in an overall decline in the Family PACT participation rate. It is important to note that the denominator in the Family PACT participation rate includes all adolescents, including those who are not sexually active.

Our analyses also revealed important subgroup trends in the number and rate of adolescent female Family PACT clients served during the study period:

- *Age*: The decline in female Family PACT participation occurred among younger and older adolescents. The 15% decline in the number of female Family PACT participants under age 18 exceeded the 2% decline in the overall population of females under the age of 18. Although the number of 18 to 19 year old females in the population increased by 8%, the number of Family PACT participants in this subgroup declined by 1%.

- *Race/Ethnicity*: The adolescent female Family PACT participation rate decreased for all racial/ethnic groups, except for African Americans. While the number of African American and White Family PACT participants decreased, the decline of African Americans in the population outpaced the decline in Family PACT participants (-13% vs.

-6%). Conversely, the decline in the number of Whites in the program was significantly larger than the rate of population decline (-22% vs. -17%). Latinas were the only racial group that experienced an increase in adolescent female participation in Family PACT, but the population grew faster (+2% vs. +13%). Adolescent female Family PACT participation in other racial groups decreased, even though the total population in this subgroup increased (-10% vs. +8%).

- *Region*: All of the regions studied experienced a decline in adolescent female Family PACT participation with the exception of the Los Angeles/San Diego Corridor. The largest decline occurred in the San Francisco Bay Area, where the participation rate fell by 2.8 points. The Family PACT participation rate in the San Joaquin/Central Valley also declined despite a 6% increase in the number of adolescent females in the population.

Provider and County Characteristics Associated with Change in Adolescent Female Family PACT Participation

Using Family PACT administrative data and other secondary data sources, we conducted individual growth modeling to understand the association between provider and county characteristics and the decline in adolescent female Family PACT participation between FY 2005-06 and FY 2010-11:

- *Provider Type*: Independent of county-level demographic and socioeconomic changes, Planned Parenthood providers served substantially more adolescent female Family PACT clients than other public and private providers. They also experienced a more rapid decline in this client subgroup than other types of providers between FY 2006-07 and FY 2010-11.

- *Teen Pregnancy Prevention (TPP) Involvement*: Between FY 2007-08 and FY 2010-11, the State of California reduced funding for Teen Pregnancy Prevention (TPP) programs by $33.5 million or 72%, eliminating or severely reducing prevention education, youth development, and outreach programs to connect adolescents with family planning and reproductive health services. Compared to providers with no TPP involvement, analyses suggested that past TPP grantees and partners served significantly more adolescent female Family PACT clients, but they also experienced a steeper decline in this client subgroup over the study period.

- *County Characteristics*: The decrease in adolescent female Family PACT clients appears to be independent of demographic and socioeconomic changes at the county level. Among numerous demographic and socioeconomic county characteristics examined, only the percentage of adolescent females who are Latina and the percentage of adults with a bachelor's degree were significantly associated with the decline of adolescent female Family PACT clients at the provider level.

Changes in Service Delivery and Outreach Practices Contributing to Decline in Adolescent Female Family PACT Participation

Several key interrelated changes in service delivery and outreach practices contributed to the decline in adolescent female Family PACT participation. Qualitative interviews with a selection of Family PACT providers identified the following provider-specific and community-level factors,

which may have contributed to the decline in adolescent female Family PACT participation between FY 2008-09 and FY 2010-11:

- *Cuts in Marketing and Outreach Efforts*: Reduced marketing and outreach efforts contributed to the decline in adolescent Family PACT participation because adolescents had less knowledge of family planning services and the Family PACT Program. Following the dramatic cuts in funding from the State of California, private foundations, and other sources, many providers drastically scaled back their marketing and outreach to adolescents, particularly education efforts in schools.

- *Reductions in Adolescents' Access to Clinics*: Access issues related to clinic hours and locations emerged as factors contributing to the decreased numbers of adolescent female Family PACT clients. Providers that relocated to less convenient locations and those operating under reduced capacity noted declines in their overall adolescent patient population. Transportation challenges particularly affected adolescents, who tended to become more reliant on public transportation after the economic downturn and had difficulties accessing family planning services at locations further away from schools.

- *Increased Use of Other Insurance Programs*: Some providers reported an increase in the percentage of their client population, including adolescents, paying for family planning services using Medi-Cal or private insurance. Some of the change in payment methods resulted from provider-led efforts to enroll more adolescents in other programs, particularly Medi-Cal, through which clients can access a broader range of health services. This finding is not surprising, given data from the Research and Analytic Studies Branch (RASB), California Department of Health Care Services showing that the total number of female Medi-Cal beneficiaries ages 0 to 18 increased by 10% between 2008 and 2010.

Conclusion

The State of California has long been recognized as a leader in teenage pregnancy prevention, including efforts to ensure access to confidential family planning and reproductive health care through the Family PACT Program. These investments have contributed to a 50% decrease in the teen birth rate since the early 1990s, yet more than 38,000 babies were born to adolescent mothers in 2011. The decline in adolescent female use of Family PACT is concerning, as there continues to be a substantial need for subsidized, confidential family planning services for this population. Study results point to the need to improve marketing, outreach, and education efforts in order to increase adolescents' knowledge of family planning services available through Family PACT. The study also supports the importance of expanding access to adolescents through efforts to offer evening and weekend hours, flexible appointment scheduling, walk-in hours, and clinics located near schools. Finally, it will be important to continue to monitor how adolescents fare as the State moves forward with the implementation of the Affordable Care Act. The unique needs of adolescents are extremely important to consider as providers work to enroll clients into programs for which they may be newly eligible, offering access to family planning as well as a broader array of primary care services.

INTRODUCTION

Background

Adolescents are a high-risk group for unintended pregnancies, which are associated with a number of adverse maternal and child health outcomes, such as inadequate or delayed prenatal care and premature birth, as well as longer-term educational, social, and economic impacts.[1-8] Only 23% of births to women ages 15-19 were intended at the time of conception, compared to 75% of births to women ages 25-44.[9] Although the adolescent birth rate in California has declined to historic lows, more than 38,000 babies were born to mothers ages 15-19 in 2011, indicating that there continues to be a substantial need for family planning services among this population. Approximately 74% of these births were to Latinas, 12% to Whites, 8% to African Americans, and 7% to other racial and ethnic groups.[10]

California's family planning program, Family Planning, Access, Care, and Treatment (Family PACT), is an important source of family planning and reproductive health services for adults and adolescents in California. The program provides comprehensive family planning services for residents with a gross family income at or below 200% of the Federal Poverty Guidelines (FPG) who have no other coverage for family planning services. Cost and confidentiality are common barriers for adolescents in obtaining reproductive health care.[11] Thus, parental income and parental consent are not required to determine adolescent eligibility for Family PACT services. The Program's "point of service" enrollment, as well as the broad array of private and public providers providing care throughout the state, also helps to eliminate traditional barriers to care.

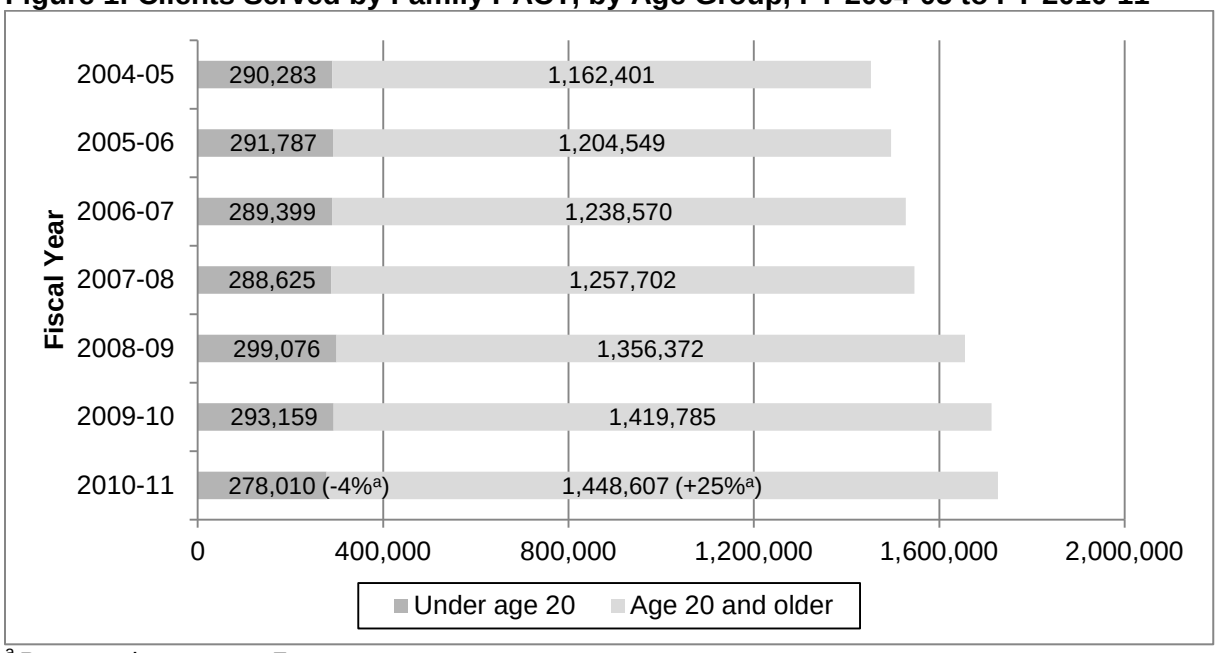
The Family PACT Program has been shown to reduce the number of unintended pregnancies among adolescents in California, resulting in substantial cost savings to local, state, and federal governments. Family PACT averted an estimated 81,200 adolescent pregnancies in 2007. It is important to consider the value of clinical access to nearly 300,000 sexually active adolescents, as many of these Family PACT clients would be dependent upon the Medi-Cal system if they were to become pregnant.[12] The average cost of each Medi-Cal delivery for an adolescent mother is $5,124 and cost savings to the state are even greater when additional social services and income support costs associated with unintended births are considered.[13] Each pregnancy averted to an adolescent Family PACT client generates an estimated public sector cost savings of $10,351 in medical, welfare, and other social service costs for a woman and child from conception up to age two.[7]

While Family PACT has experienced steady growth in adult participation between fiscal year (FY) 2004-05 and FY 2010-11, the number of adolescent Family PACT clients — defined as clients under the age of 20 — declined by 12,273 clients (-4%) during that time period (Figure 1). The total number of adolescent clients served declined each year, except in FY 2005-06 (+1%) and FY 2008-09 (+4%). The largest single-year decrease in adolescents occurred in FY 2010-11 (-5%). In turn, the proportion of all Family PACT clients who were adolescents decreased from 20% in FY 2004-05 to 16% in FY 2010-11.

Among adolescents, the decline in Family PACT participation was unique to females (Figure 2). The number of male adolescents served by Family PACT increased by 7,419 clients (+25%) between FY 2004-05 and FY 2010-11. In comparison, the number of female adolescents served by Family PACT decreased by 19,692 clients (-8%) over this time period. The number of adolescent female clients served declined each year, except for FY 2008-09 when female adolescent participation increased slightly (+2%). Female adolescent participation fell by 6%

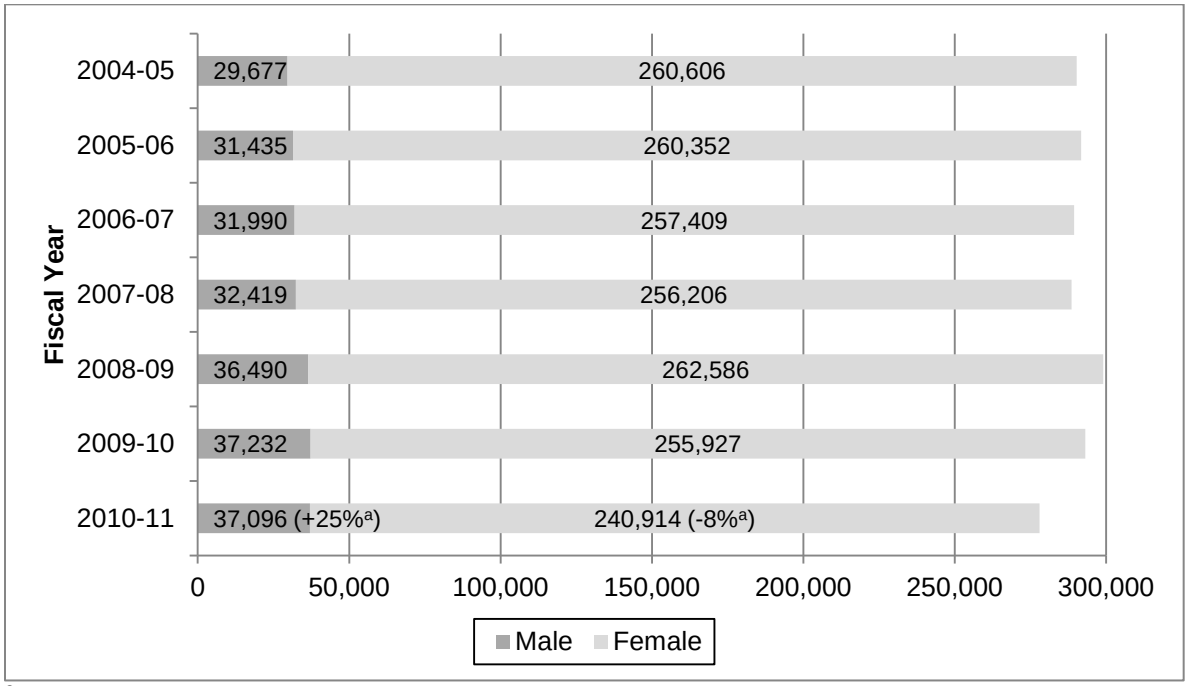
between FY 2009-10 and FY 2010-11, marking the largest one-year decrease in the period. Overall, the decline among adolescent female Family PACT clients raises concerns about whether adolescents' needs for family planning and reproductive health services are being met.

Figure 1: Clients Served by Family PACT, by Age Group, FY 2004-05 to FY 2010-11



[a] Percent change over 7 years
Source: Family PACT Enrollment and Claims Data

Figure 2: Clients under Age 20 Served by Family PACT, by Gender, FY 2004-05 to FY 2010-11



[a] Percent change over 7 years
Source: Family PACT Enrollment and Claims Data

About the Study

This study examined the decline in adolescent female participation in Family PACT between FY 2004-05 and FY 2010-2011 and possible contributing factors. A variety of factors, including changes in outreach and service delivery practices, which the program could potentially address, may have driven the reduction in the number of adolescent female clients. On the other hand, the observed decline for this important subgroup may be associated with demographic and/or socioeconomic changes that occurred concurrently, but independently of the program.

As part of this study, we undertook three sets of analyses to address the following evaluation questions:

1) Has participation in Family PACT declined within subgroups of adolescent females?

2) How are provider and county characteristics associated with decreased Family PACT participation among adolescent females?

3) What changes in service delivery and outreach practices might explain the decline in Family PACT participation among adolescent females?

As described below, we combined quantitative and qualitative research methods to collect and analyze data. Findings from the study can help inform policy discussions and decision-making around maintaining or expanding adolescent participation in Family PACT and Medi-Cal family planning programs.

METHODOLOGY

The overall goal of the study was to examine the decline in adolescent female participation in Family PACT and contributing factors. The study used a mixed-method approach for collecting and analyzing data. Appendix A provides detailed information about study methods.

Family PACT Administrative Data and Other Secondary Data

We began by analyzing Family PACT administrative data and other publicly available secondary data, such as the American Community Survey data (Figure 3). We analyzed trends in the total number of adolescent female Family PACT clients, as well as by age, race/ethnicity, and geographic region. Next, we used growth modeling techniques to examine factors affecting change in the number of adolescent female Family PACT clients served. The analyses addressed two guiding evaluation questions:

1) Has participation in Family PACT declined within subgroups of adolescent females?
2) How are provider and county characteristics associated with decreased Family PACT participation among adolescent females?

Figure 3: Data Sources Used in the Family PACT Adolescent Study

Data Source	Types of Measures
Family PACT Administrative (Paid Claims and Enrollment) Data	• Family PACT clients served • Family PACT provider characteristics • Family PACT providers per county
American Community Survey	• Demographic characteristics per county • Socioeconomic characteristics per county
California Department of Finance	• Female adolescent population per county • Racial/ethnic distribution of female adolescent population per county
California Department of Education	• High school dropout rate per county
California Department of Health Care Services	• Female Medi-Cal beneficiaries ages 0 to 18 per county

Family PACT Provider Interviews

Based on the secondary data analysis, we selected a subsample of 21 provider sites for further data collection. These provider sites were selected because they experienced larger increases or decreases in adolescent female Family PACT clients than would be expected based on their provider and county characteristics. We conducted semi-structured interviews with clinic administrators at the selected provider sites aiming to uncover new factors linked to reduced adolescent female Family PACT participation. We also gave special attention to policies and practices that may be particularly relevant for adolescent recruitment and retention. The complete interview guide can be found in Appendix B.

We analyzed the interview data to identify key themes and representative quotes. The interviews focused on the following evaluation question:

3) What changes in service delivery and outreach practices might explain the decline in Family PACT participation among adolescent females?

FINDINGS

Question 1: Has participation in Family PACT declined within subgroups of adolescent females?

Below are results from the analysis of trends in Family PACT participation. We first present trends in the Family PACT participation rate, which is the ratio of the number of adolescent females participating in Family PACT to the number of adolescent females in the population, with the ratio expressed as a percentage. It is important to note that the denominator in the Family PACT participation rate includes all adolescents, including those who are not sexually active. We then examine trends in adolescent female Family PACT participation within demographic and geographic subgroups. Please see Appendix A for a description of the data and estimation methodology.

Family PACT Participation Rate for All Adolescent Females

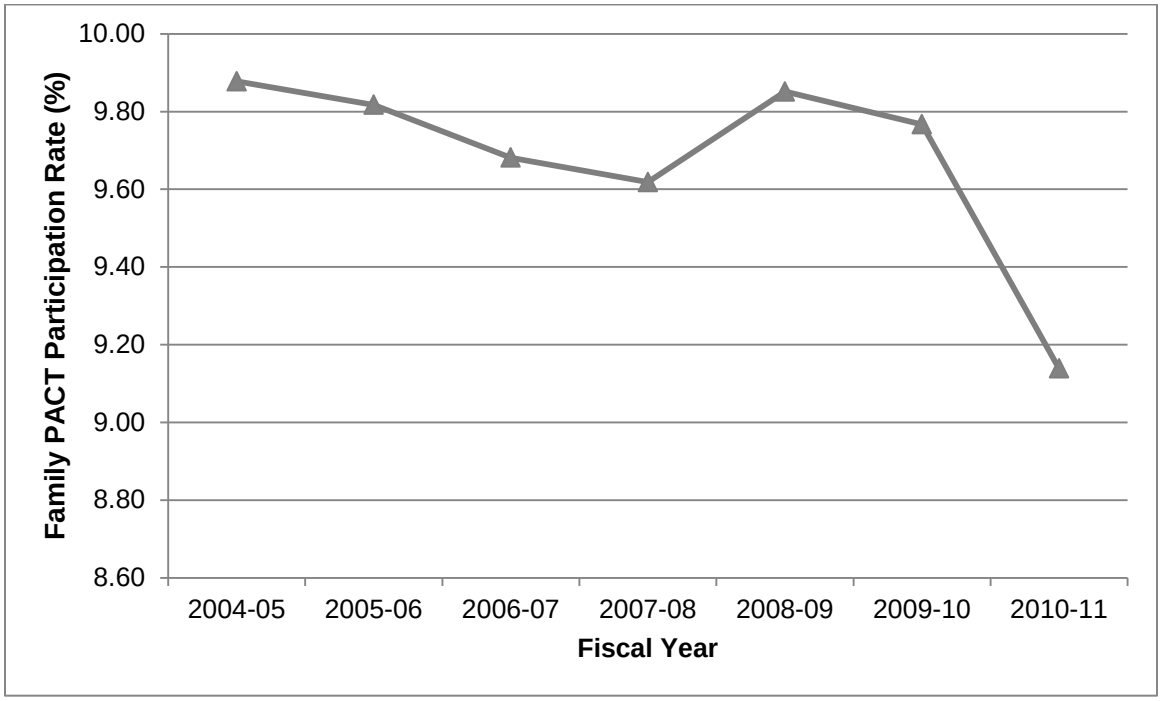
The Family PACT participation rate among adolescent females declined by 0.74 points between FY 2004-05 and FY 2010-11 (Table 1, Figure 4). The participation rate fell in each year, except for between FY 2007-08 and FY 2008-09. The largest single-year decline occurred between FY 2009-10 and FY 2010-11 when the participation rate fell by over half a point. While both the absolute number of participants and population declined during this period, the number of participants declined more rapidly, resulting in an overall decline in the participation rate. The number of adolescent females in the population fell by less than 1%, while the number of adolescent female Family PACT clients fell by about 8%.

Table 1: Total Population, Number of Family PACT Participants, and Family PACT Participation Rates for Females under Age 20, FY 2004-05 to FY 2010-11

Fiscal Year	Population	Family PACT Participants	Family PACT Participation Rate (%)
2004-05	2,638,301	260,606	9.88
2005-06	2,652,008	260,352	9.82
2006-07	2,658,884	257,409	9.68
2007-08	2,663,754	256,206	9.62
2008-09	2,665,474	262,586	9.85
2009-10	2,620,363	255,927	9.77
2010-11	2,636,243	240,914	9.14

Sources: Family PACT Enrollment and Claims Data; State of California Department of Finance Population Estimates

Figure 4: Family PACT Participation Rates for Females under Age 20, FY 2004-05 to FY 2010-11



Note: The Family PACT participation rate is the ratio of the number of adolescent females participating in Family PACT to the number of adolescent females in the population, with the ratio expressed as a percentage.
Sources: Family PACT Enrollment and Claims Data; State of California Department of Finance Population Estimates

Age Group

Family PACT participation declined among adolescent females under age 18 and those age 18-19 (Table 2, Figure 5). The Family PACT participation rate for females under age 18 declined by 0.75 points between FY 2004-05 and FY 2010-11. The number of females under age 18 in the population peaked in FY 2007-08 and then declined by over 60,000 between FY 2007-08 and FY 2010-11, resulting in an overall decrease of 2% during the period. Meanwhile, the number of female Family PACT clients under age 18 decreased steadily each year between FY 2004-05 and FY 2010-11, resulting in a 15% decline. The largest one-year decrease occurred between FY 2009-10 and FY 2010-11 (-5,168 clients, -5%).

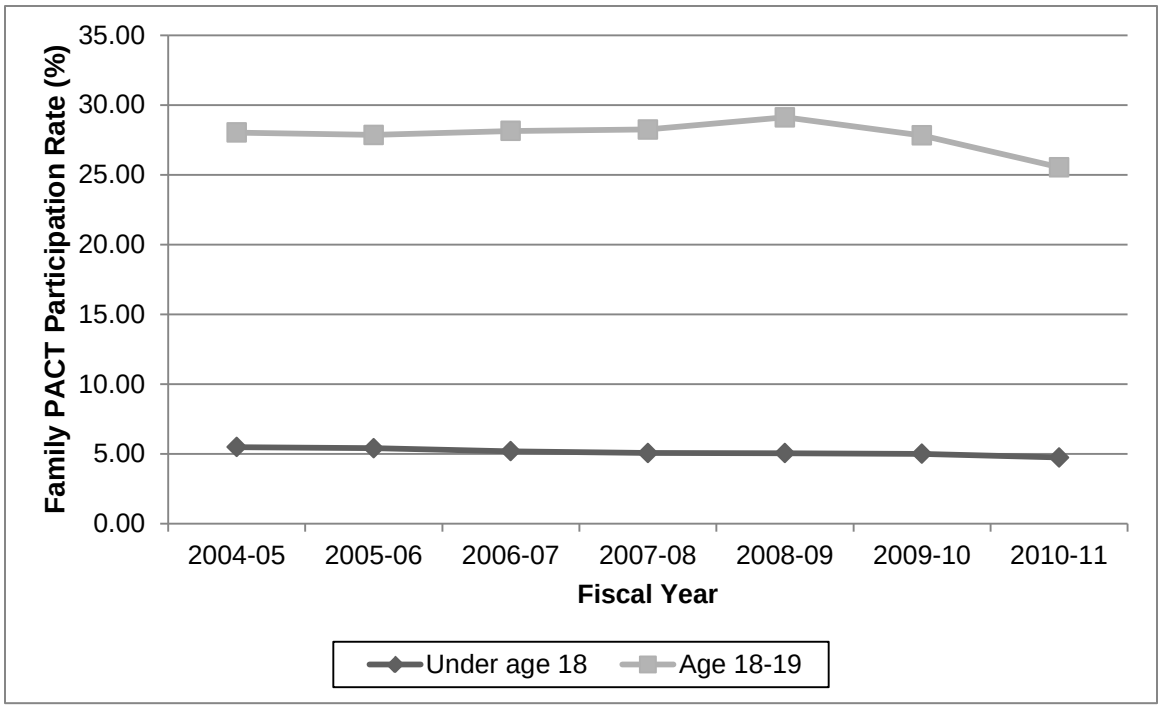
Family PACT participation fluctuated more among older adolescent females but declined overall. The Family PACT participation rate for 18-19 year old females remained relatively steady between FY 2004-05 and FY 2007-08, increased in FY 2008-09, and then fell sharply between FY 2008-09 and FY 2010-11. Across the entire seven-year period the participation rate for this age group declined by 2.48 points because while the number of 18-19 year old females in the population increased by 8%, the number of female Family PACT clients ages 18-19 decreased by 1%. Most of the decline in this subgroup occurred between FY 2008-09 and FY 2010-11. In fact, Family PACT participation for females age 18-19 increased by 7% between FY 2004-05 and FY 2008-09, but then fell by 8% between FY 2008-09 and FY 2010-11.

Table 2: Total Population, Number of Family PACT Participants, and Family PACT Participation Rates for Adolescent Females, by Age Group, FY 2004-05 to FY 2010-11

	Under age 18			Age 18-19		
Fiscal Year	Population	Family PACT Participants	Family PACT Participation Rate (%)	Population	Family PACT Participants	Family PACT Participation Rate (%)
2004-05	2,124,122	116,522	5.49	514,179	144,084	28.02
2005-06	2,130,976	115,197	5.41	521,032	145,155	27.86
2006-07	2,138,301	110,884	5.19	520,583	146,525	28.15
2007-08	2,140,536	108,392	5.06	523,217	147,814	28.25
2008-09	2,134,255	107,932	5.06	531,219	154,654	29.11
2009-10	2,073,049	103,683	5.00	547,314	152,244	27.82
2010-11	2,078,780	98,515	4.74	557,463	142,399	25.54

Sources: Family PACT Enrollment and Claims Data; State of California Department of Finance Population Estimates

Figure 5: Family PACT Participation Rates for Adolescent Females, by Age Group, FY 2004-05 to FY 2010-11

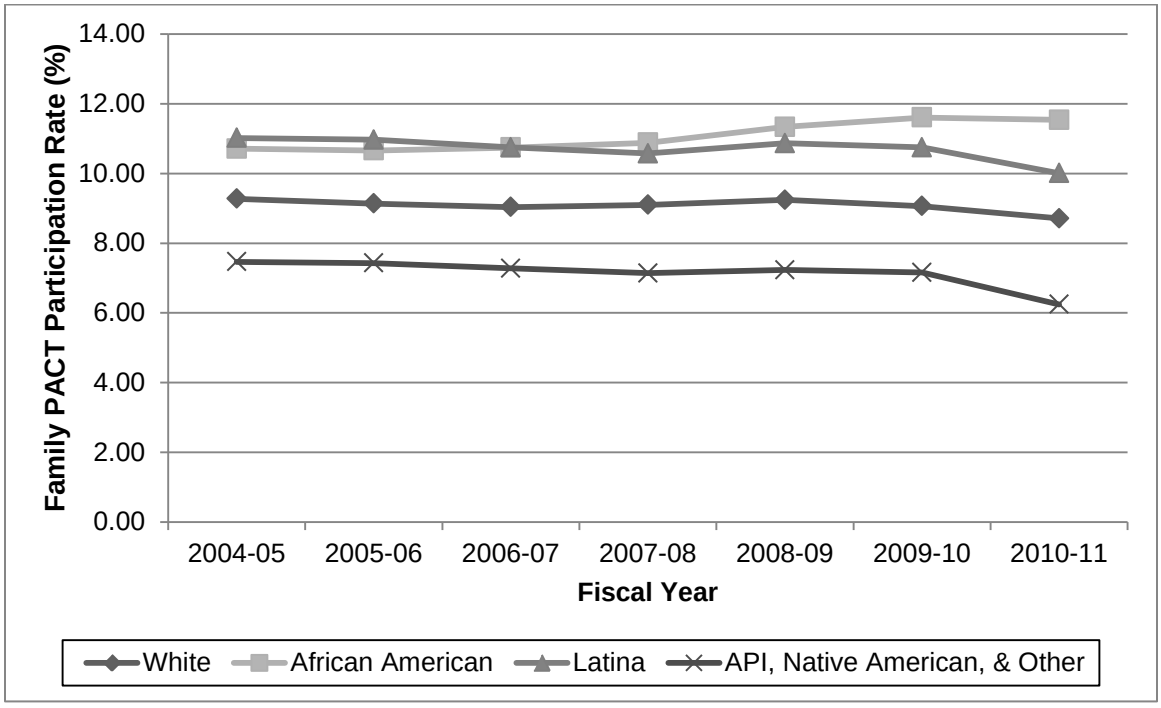


Sources: Family PACT Enrollment and Claims Data; State of California Department of Finance Population Estimates

Race/Ethnicity

Trends in adolescent female Family PACT participation also varied by race/ethnicity (Table 3, Figure 6). The Family PACT participation rate increased for African American adolescent females (by 0.82 points), but decreased for all other racial/ethnic groups. Both the overall population and the number of adolescent female African American participants declined, but the population declined at a greater rate. Notably, Latinas were the only racial/ethnic group to experience an increase in the number of adolescent female Family PACT participants (+2%) between FY 2004-05 and FY 2010-11, but this was surpassed by the 13% growth in the population. The number of adolescent females in the population also increased for Asian and Pacific Islanders (API), Native Americans, and other races/ethnicities, but the number of Family PACT participants decreased for these groups for a net decrease. White adolescent females experienced the largest decreases in terms of both population and Family PACT participants, but overall the decline in number of participants outpaced the population decline.

Figure 6: Family PACT Participation Rates for Females under Age 20, by Race/Ethnicity, FY 2004-05 to FY 2010-11

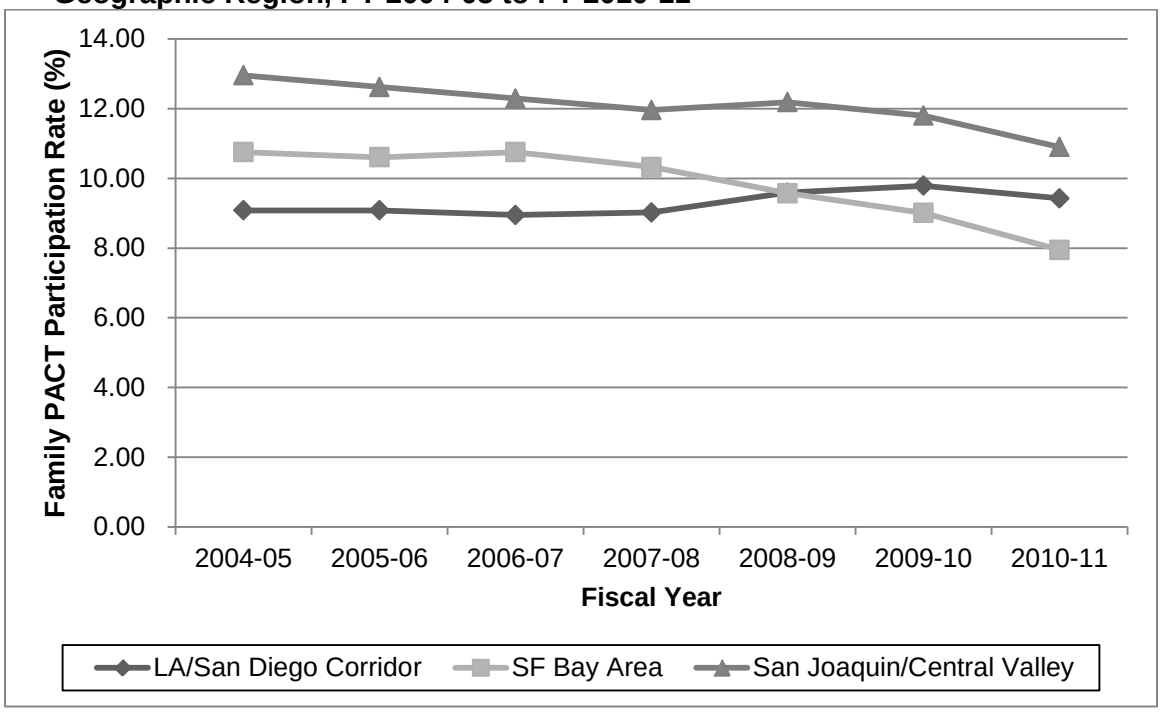


Note: API = Asian, Pacific Islander
Sources: Family PACT Enrollment and Claims Data; State of California Department of Finance Population Estimates.

Region

Table 4 and Figure 7 show trends in adolescent female Family PACT participation for three regions – the Los Angeles/San Diego Corridor, the San Francisco Bay Area and the San Joaquin/Central Valley – which are of interest due to their large populations or their high teen birth rates. The only region to experience an increase in adolescent female Family PACT participation was the Los Angeles/San Diego Corridor. The participation rate in this region increased between FY 2006-07 and FY 2010-11, primarily because the number of participants increased alongside a decrease in overall population. The largest decline occurred in the San Francisco Bay Area, where the participation rate fell by 2.8 points over the period. The number of adolescent female clients fell by 28%, compared to the 2% decline in the overall population of adolescent females in this region. The San Joaquin/Central Valley region also experienced a decline in participation rates, primarily driven by a decline in number of participants. In that region, the number of participants fell by 11%, while the population increased by 6%.

Figure 7: Family PACT Participation Rates for Females under Age 20, by California Geographic Region, FY 2004-05 to FY 2010-11



Sources: Family PACT Enrollment and Claims Data; State of California Department of Finance Population Estimates.

Table 3: Total Population, Number of Family PACT Participants, and Family PACT Participation Rates for Females under Age 20, by Race/Ethnicity, FY 2004-05 to FY 2010-11

	White			African American			Latina			API, Native American, & Other		
Fiscal Year	Population	Family PACT Participants	Family PACT Participation Rate (%)	Population	Family PACT Participants	Family PACT Participation Rate (%)	Population	Family PACT Participants	Family PACT Participation Rate (%)	Population	Family PACT Participants	Family PACT Participation Rate (%)
2004-05	908,150	84,221	9.27	186,578	19,979	10.71	1,160,074	127,784	11.02	383,499	28,622	7.46
2005-06	891,871	81,493	9.14	185,699	19,791	10.66	1,189,968	130,500	10.97	384,470	28,568	7.43
2006-07	873,304	78,913	9.04	183,900	19,753	10.74	1,215,474	130,643	10.75	386,207	28,100	7.28
2007-08	854,830	77,800	9.10	181,606	19,754	10.88	1,237,875	130,850	10.57	389,443	27,802	7.14
2008-09	836,484	77,310	9.24	179,190	20,310	11.33	1,256,997	136,564	10.86	392,803	28,402	7.23
2009-10	794,861	72,044	9.06	171,329	19,882	11.60	1,271,198	136,583	10.74	382,975	27,418	7.16
2010-11	751,377	65,448	8.71	162,272	18,717	11.53	1,307,728	130,845	10.01	414,866	25,904	6.24

Note: API = Asian, Pacific Islander

Sources: Family PACT Enrollment and Claims Data; State of California Department of Finance Population Estimates

Table 4: Total Population, Number of Family PACT Participants, and Family PACT Participation Rates for Females under Age 20, by California Geographic Region, FY 2004-05 to FY 2010-11

	Los Angeles/San Diego Corridor			San Francisco Bay Area			San Joaquin/Central Valley		
Fiscal Year	Population	Family PACT Participants	Family PACT Participation Rate (%)	Population	Family PACT Participants	Family PACT Participation Rate (%)	Population	Family PACT Participants	Family PACT Participation Rate (%)
2004-05	1,311,450	119,078	9.08	256,046	27,529	10.75	254,244	32,927	12.95
2005-06	1,318,415	119,723	9.08	253,931	26,931	10.61	257,722	32,520	12.62
2006-07	1,319,167	118,038	8.95	251,960	27,090	10.75	261,428	32,126	12.29
2007-08	1,317,111	118,814	9.02	251,647	25,976	10.32	264,161	31,593	11.96
2008-09	1,312,154	125,820	9.59	251,378	24,064	9.57	266,507	32,463	12.18
2009-10	1,278,396	125,129	9.79	248,287	22,365	9.01	267,693	31,578	11.80
2010-11	1,291,389	121,727	9.43	249,344	19,820	7.95	269,763	29,400	10.90

Sources: Family PACT Enrollment and Claims Data; State of California Department of Finance Population Estimates

Question 2: How are provider and county characteristics associated with decreased Family PACT participation among adolescent females?

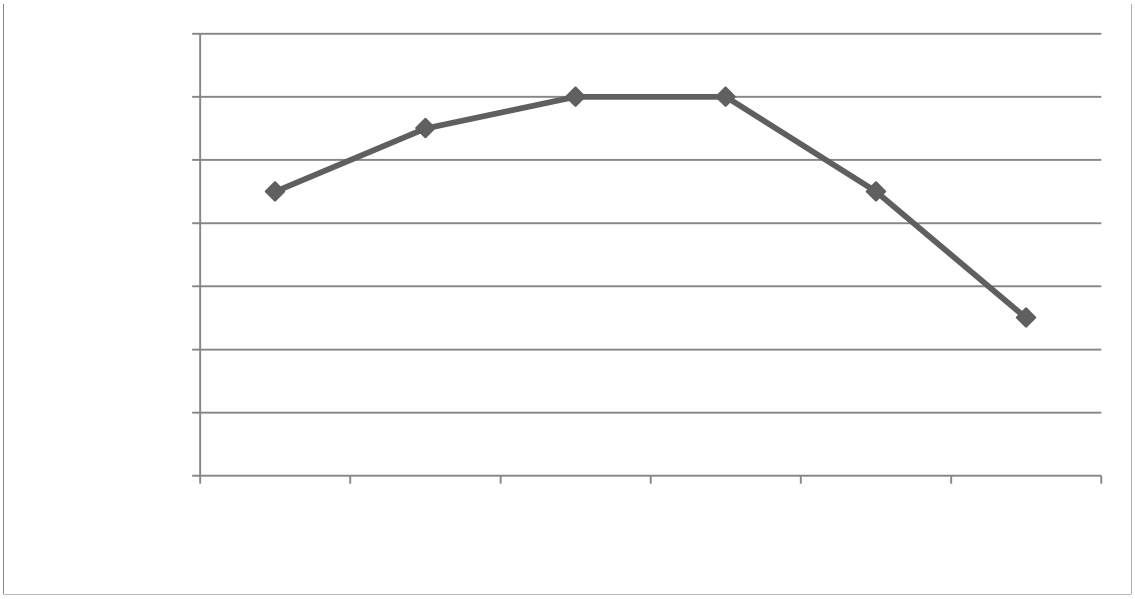
We used individual growth modeling techniques to analyze change in the number of adolescent female Family PACT clients at the provider level between FY 2005-06 and FY 2010-11. This approach allowed us to simultaneously address the following three questions: (1) How does each provider's number of adolescent female Family PACT clients change over time? (2) Can we predict differences in these changes according to provider characteristics? and (3) Were these changes independent of demographic and socioeconomic trends at the county level? For details on the data and methods used, please see Appendix A.

Changes in Adolescent Female Family PACT Clients per Provider

First, we examined the overall pattern of change in the number of adolescent female Family PACT clients per provider between FY 2005-06 and FY 2010-11. Model 1 in Table 5 shows the results of the unconditional growth model predicting the number of adolescent female Family PACT clients over time, not controlling for any provider or county characteristics.

Results indicated a systematic change in the number of adolescent female Family PACT clients over this time period (Figure 8). We estimated that the average provider served about 143 female adolescent clients in FY 2005-06, and at that time, the average provider's adolescent female Family PACT clients increased by about four per year. However, this increase was not maintained. With each passing year, the growth rate in adolescent female clients diminished until the trajectory flipped from increasing to decreasing between FY 2007-08 and FY 2008-09.

Figure 8: Estimated Change in Female Family PACT Clients under Age 20 per Provider, FY 2005-06 to FY 2010-11



Note: The line represents the estimated growth in the number of adolescent female Family PACT clients per provider, not controlling for provider or county characteristics.

Effects of Provider and County Characteristics on Change in Family PACT Participation among Adolescent Females

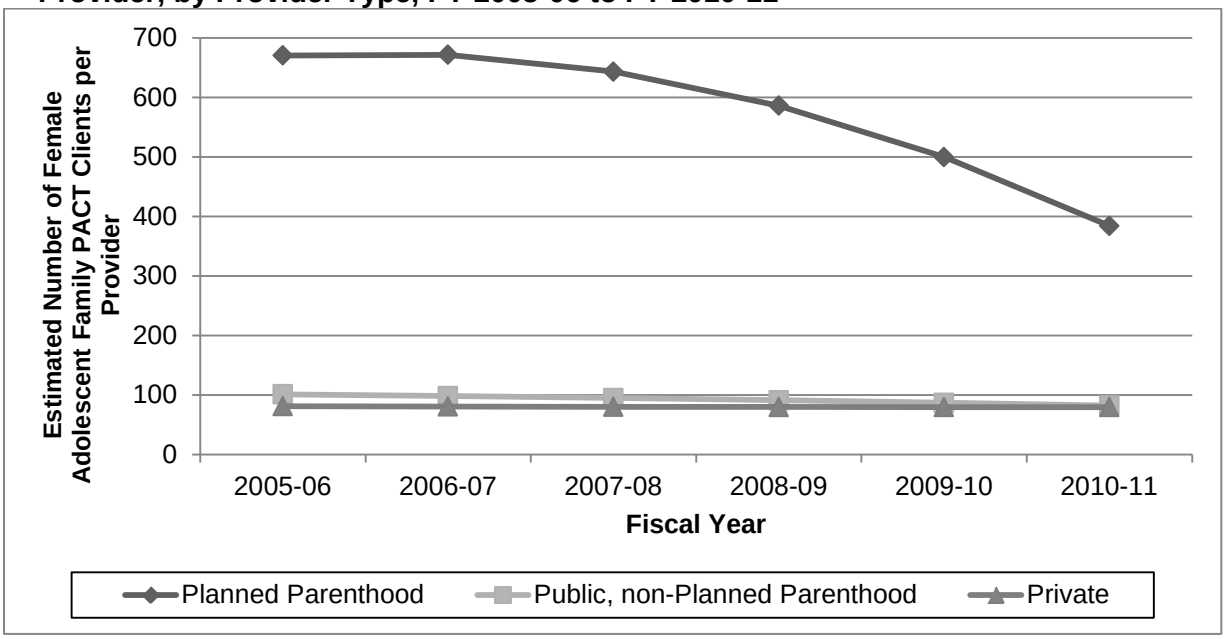
Provider Type

Next, we examined whether patterns of change in the number of adolescent female Family PACT clients varied by provider type (independent of county-level demographic and socioeconomic trends). Model 2 in Table 5 shows the results of the reduced multivariate individual growth model, which includes provider type and county characteristics that were significantly associated with the number of adolescent female Family PACT clients. Please see Appendix A for a detailed discussion of the model fitting procedures and additional variables that were analyzed but excluded from the final reduced model.

Results suggested that the pattern of change in adolescent female Family PACT clients varied significantly by provider type, both in terms of the initial number served and the change over time in the number served (Figure 9). In FY 2005-06, compared to private providers, the number of adolescent female Family PACT clients was substantially larger at Planned Parenthood providers and slightly larger at public, non-Planned Parenthood providers.

For Planned Parenthood providers, the number of adolescent female Family PACT clients remained essentially flat between FY 2005-06 and FY 2006-07, but declined steadily thereafter. In comparison, the number of adolescent female Family PACT clients remained steady over time at non-Planned Parenthood public providers as well as at private providers. Of course, these two provider types initially served fewer adolescent female Family PACT clients, and consequently, had less room to see a decline.

Figure 9: Estimated Change in Number of Female Family PACT Clients under Age 20 per Provider, by Provider Type, FY 2005-06 to FY 2010-11



Note: Each line represents the estimated growth in the number of adolescent female Family PACT clients for Planned Parenthood providers (line with diamonds), other public providers (line with squares), and private providers (line with triangles). Providers in each group were assigned the sample mean for percent of female adolescents who are Latina in the county, percent of adults in the county with a bachelor's degree, and number of female clients over the age of 20.

Table 5: Mixed-Effects Regression Models Predicting Change in the Number of Female Family PACT Clients under Age 20 per Provider, FY 2005-06 to FY 2010-11

	Model 1[a]		Model 2[a]		Model 3[b]	
	Coef.	SE	Coef.	SE	Coef.	SE
Initial status						
Intercept	142.70***	13.48	56.44***	16.01	93.76**	31.17
Provider type (reference = private)						
Planned Parenthood			589.47***	15.86		
Public, non-Planned Parenthood			19.90**	6.36		
TPP program involvement (reference = neither)						
Grantee					223.39***	22.77
Partner					75.30***	22.28
Rate of change over time						
Year	3.57**	1.18	-0.00	1.01	3.30	2.12
$Year^2$	-0.87***	0.19	-0.04	0.16	-1.58***	0.30
Provider type (reference = private)						
Planned Parenthood x Year			16.16***	4.15		
Planned Parenthood x $Year^2$			-14.62***	0.66		
Public, non-Planned Parenthood x Year			-1.92	1.68		
Public, non-Planned Parenthood x $Year^2$			-0.30	0.27		
TPP program involvement (reference = neither)						
Grantee x Year					-27.62***	3.66
Partner x Year					-11.72**	3.58
Controls						
Female clients age 20 and older			0.20***	0.00	0.25***	0.00
Percentage of female adolescents in county Latina			-0.76***	0.20	-1.38**	0.42
Percentage of adults in county with a bachelor's degree or higher			-1.19***	0.30	-1.64**	0.59
Model Goodness-of-Fit						
Log likelihood	-98,204.59		-90,022.99		-35,817.63	

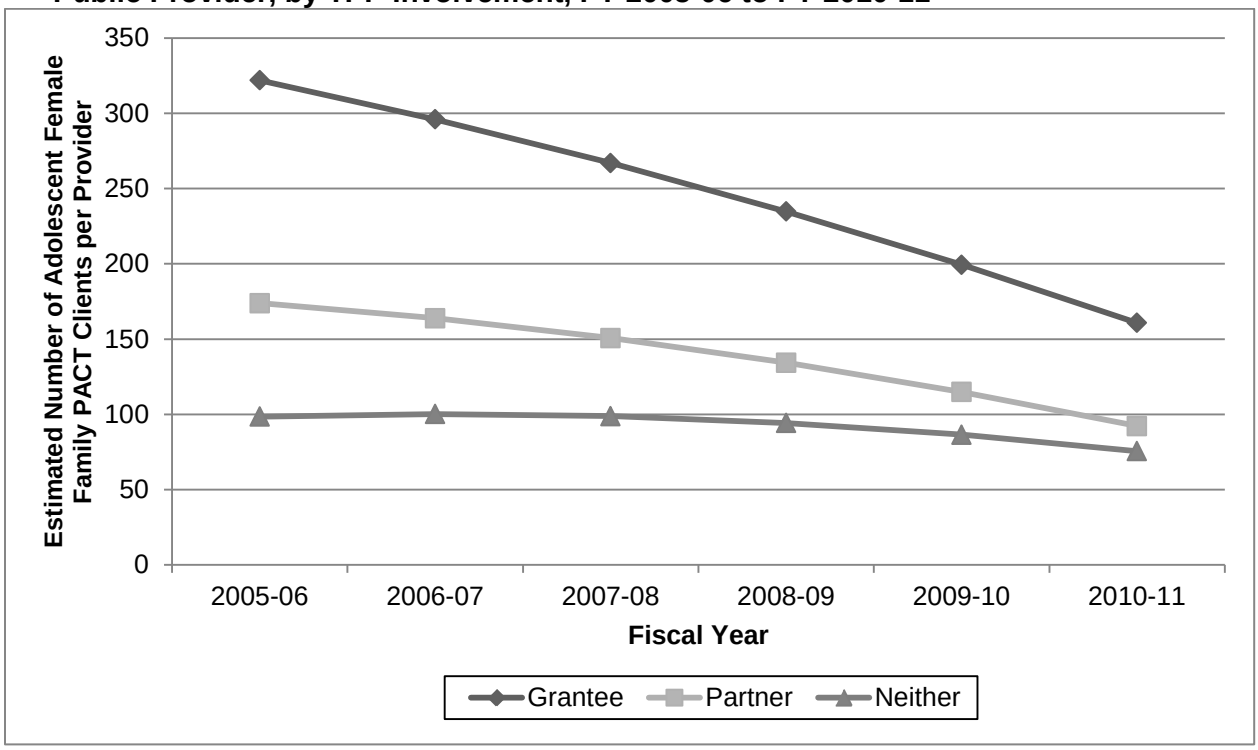
*p<.05, **p<.01, ***p<.001
[a]N=2,684 providers. [b]N=997 public providers.
Note: Coef. = coefficient; SE = standard error. Model 1 is the unconditional growth model, which accounts for time but excludes provider and county characteristics. Model 2 is the reduced multivariate mixed-effects model, including provider type and county characteristics. Model 3 is the reduced multivariate mixed-effects model, including past TPP involvement and county characteristics.

Teen Pregnancy Prevention (TPP) Involvement

Next, we examined whether providers experienced different patterns of change based on their past involvement in California's state-funded Teen Pregnancy Prevention (TPP) programs. TPP programs provided funding to organizations, including some Family PACT providers, for prevention education, youth development, and outreach programs to connect adolescents with family planning and reproductive health services. Total state spending on TPP programs declined by 72% ($33.5 million) between FY 2007-08 and FY 2011-12.[14] Model 3 in Table 5 shows the results of the reduced multivariate individual growth model, adding a variable for past TPP involvement to Model 2. We limited the sample to 997 public providers, because only 34 private providers were TPP grantees or partners.

Change in adolescent female Family PACT clients varied significantly by past TPP involvement (Figure 10). In FY 2005-06, TPP grantees and partners served significantly more adolescent female Family PACT clients than providers with no TPP involvement. We also found that TPP grantees served significantly more adolescent female Family PACT clients than TPP partners (results not shown). Furthermore, TPP grantees or partners experienced a steady decline in adolescent female Family PACT clients between FY 2005-06 and FY 2010-11. Although differences in adolescent female Family PACT participation by TPP involvement persisted, those differences diminished in the years following the TPP funding cuts.

Figure 10: Estimated Change in Number of Female Family PACT Clients under Age 20 per Public Provider, by TPP Involvement, FY 2005-06 to FY 2010-11



Note: Each line represents the estimated growth in the number of adolescent female Family PACT clients for TPP grantees (line with diamonds), partners (line with squares), and providers who were neither grantees nor partners (line with triangles). Providers in each group were assigned the sample mean for percent of female adolescents who are Latina in the county, percent of adults in the county with a bachelor's degree, and number of female clients age 20 and older.

We also examined the effects of additional provider characteristics on adolescent female Family PACT clients. As expected, providers that served more adult female Family PACT clients also served more adolescent females in the program. Urban location was not significantly associated with the initial level or rate of change in adolescent female Family PACT clients in the multivariate models. The proportion of the provider's adolescent female Family PACT clients receiving long-acting contraceptive methods was negatively, but not significantly, related to the total number of clients in this subgroup.

County Characteristics

The patterns of change in adolescent female Family PACT clients described above were independent of demographic and socioeconomic population trends. In any given year, providers in counties with a larger percentage of adolescent females who are Latina served fewer adolescent female Family PACT clients. In addition, providers in counties with a larger percentage of adults with a bachelor's degree served fewer Family PACT clients in this subgroup.

Besides the percent of adolescent females who are Latina and the percent of adults with a bachelor's degree, other demographic and socioeconomic county characteristics were not significantly associated with the number of adolescent female Family PACT clients per provider. For example, we found no relationship between adolescent female Family PACT clients and the number of adolescent females in the population (per Family PACT provider), the teen birth rate, or poverty rates at the county level. We also found no significant effect of the percent of females ages 0 to 18 who were Medi-Cal beneficiaries. For a complete list of the county characteristics examined, see Table 7 in Appendix A. These results should be interpreted cautiously, as the diversity within counties may be masking the effects of demographic or socioeconomic change in smaller geographic areas surrounding Family PACT providers.

Question 3: What changes in service delivery and outreach practices might explain the decline in Family PACT participation among adolescent females?

Results from the qualitative portion of the study are presented below. We conducted 21 interviews with Family PACT providers with the intent of uncovering new factors associated with trends in adolescent female participation, particularly any changes in service delivery and/or outreach practices. We also aimed to deepen our understanding of the relationship between provider and county characteristics and changes in Family PACT participation among adolescent females.

Qualitative sample selection relied on a mixed-method strategy. We chose to study unique providers rather than selecting a representative sample. Specifically, we used information available from the statistical analysis to systematically select 16 providers that, based on provider and county characteristics, experienced larger-than-expected decreases in female adolescent Family PACT clients served, and five who saw larger-than-expected increases for this group. Appendix A contains detailed information on the methodology, including a description of the sample.

We asked providers to discuss a wide range of clinic-specific and community-level factors that may have contributed to the trend in adolescent female participation in Family PACT (please see Appendix B for the full interview guide). Figure 11 presents an overview of the factors we identified as driving the decline in adolescent female Family PACT clients. These are the areas providers emphasized or discussed most frequently regarding the decline in the number of adolescent female Family PACT clients. Details of these themes will be discussed in subsequent sections, along with additional factors that emerged as potential contributors to the decreasing number of clients in this subgroup.

Figure 11: Factors Driving the Decline in Adolescent Female Family PACT Clients, FY 2008-09 to FY 2010-11 †

Cuts in Marketing and Outreach Efforts	⇒ Loss of TPP or private foundation funding contributed to major cuts in education and outreach efforts in schools, including peer educator programs.
	⇒ Reduced marketing and outreach efforts had the biggest impact among adolescents under the age of 18 as their awareness of clinic services and the availability of Family PACT declined.
Challenges in Accessing Family Planning Services	⇒ Reduced appointment availability and clinic hours were a particular hurdle for adolescents seeking family planning services, as they were more likely to need flexible appointment scheduling compared to other age groups.
	⇒ Clinic relocations to inconvenient locations limited adolescents' access to family planning services, particularly for those who became more dependent on public transportation after the economic downturn.
Shifts in Payment Method and Enrollment Practices	⇒ Some providers saw an increasing percentage of their client population, including adolescents, paying for family planning services using Medi-Cal or private insurance.
	⇒ Some of the change in how adolescents pay for family planning services resulted from provider-led efforts to improve comprehensive coverage.

† Based on comments of providers who experienced a decrease in adolescent female Family PACT client participation.

Cuts in Marketing and Outreach Efforts

The majority of the providers interviewed that experienced a decrease in adolescent female Family PACT participation (13 of 16) noted significant changes in their marketing and outreach practices and identified cuts in this area as a driving factor behind the declining number of adolescent female clients served. These providers made substantial cuts to peer educator programs and reduced staff working on adolescent-specific outreach and education in schools, thereby reducing the number of places at which they recruited family planning clients. Similarly, these providers reduced or cut traditional marketing efforts, including advertising, promotion of services at community events, and their collaboration with a number of community partners. As discussed further below, the elimination or reduction of these efforts appears to have contributed to the number of adolescents receiving services at these providers.

Reductions in Peer Educators and Outreach Staff

Some providers (6 of 16) reported cuts to the number of staff working on adolescent-focused marketing and outreach efforts as well as peer educator programs. These staff members and peer educators promoted services at community health fairs, delivered family planning education in schools, and provided one-to-one outreach to adolescents. After cuts to outreach staff, a Contra Costa County provider observed, "We weren't able to go as many places and do as many things in as many areas, because we had less people to do it." Peer educator programs and targeted marketing and outreach efforts were essential in informing adolescents about the Family PACT Program and encouraged them to seek family planning services.

> *"We used to have the TeenSMART Outreach and a grant from [private foundation] for the peer [educator] clinic. We used to target many of the local high schools and recruit teens, mainly girls because the girls never had the courage to [seek family planning services]. We used to have programs that offered incentives like transportation, gift cards to things that the teens were into. The lack of teen outreach has definitely affected the number of clients we serve or that are referred to our clinic."*
> – [San Diego County Provider]

As previously stated, total state spending on TPP programs declined 72% ($33.5 million) between FY 2007-08 and FY 2011-12.[14] These programs had supported community-based efforts in the areas of prevention education, youth development, and referrals to family planning and reproductive health services. Most providers attributed profound cuts to their marketing and outreach staff to the cuts in state TPP funding or private foundation funding cuts. Although both Family PACT and non-Family PACT adolescents were affected by the decrease in outreach staff, the reduction in peer educators particularly affected adolescents under 18 seeking family planning services.

> *"The lack of funding for education and media for teens has definitely affected the knowledge or at least for them to know that there's a clinic available for confidential Family PACT services. We went from having posters on the city buses and screens at the local movie theater, nice fliers, and incentive programs, to zero. The only information we are able to use is information that's low-cost, because we have to keep in mind that it's expensive."*
> – [San Diego County Provider]

Declines in Referrals and Community Partnerships

In addition to provider-led marketing and outreach efforts, respondents also highlighted the importance of partnerships with schools and community-based organizations in improving adolescents' access to family planning services. Partnerships with organizations like Big Brothers Big Sisters, Future Leaders of America, and local juvenile detention centers increased adolescents' use of family planning services at these clinics. However, following TPP budget cuts and the economic downturn in FY 2008-09, partnerships with schools and community-based organizations became severely restricted. In general, community partners suffered funding cuts that focused their remaining resources on the provision of direct services rather than maintaining partnerships, dramatically shifting the climate in which providers operate.

> *"A lot of the community organizations have been hit harder and, therefore, they are not doing as much outreach to reach high-risk youth. With some of these youth programs that are trying to hold on to every last penny that comes their way, there has been a reduction overall in youth programs, and those are often times easy groups, at least for our educators, or for them to refer to us. That population of youth has become less accessible."*
> – [Ventura County Provider]

Five of the sixteen providers that experienced a decrease in adolescent female Family PACT clients reported receiving fewer referrals from partner organizations, or having limited capacity to maintain partnerships with schools. Some providers thought that declines in referrals particularly affected adolescents under 18. Unlike resource savvy older adolescents who could easily find family planning services through other sources such as internet searches, younger adolescents were less likely to seek out family planning services or know about a clinic unless they are referred by another organization, or by peers who have been served by other organizations.

Less Knowledge of Confidential Family Planning Services

Because of weakened partnerships, and vastly reduced marketing and outreach efforts, providers thought that knowledge about confidential family planning services had declined or remained inadequate. Providers underscored that, without referrals from community partners or marketing and outreach efforts in schools, adolescents had limited knowledge of the Family PACT Program and were less likely to seek family planning services.

> *"I am not sure that teens are fully aware [of our clinic] and Family PACT. We try to capture them where they are. They hear it through word of mouth from friends that you can go into a [clinic] or any provider that has Family PACT and you can get free services. But outside of word of mouth, I am not sure how aware this population is that there is a program out there to assist them."*
> – [Los Angeles County Provider]

Providers that experienced a decrease in adolescent female Family PACT clients perceived that adolescents were less likely to enroll in Family PACT if they did not know that confidential services are offered. According to these providers, knowledge of confidential services led to increased enrollment in the Family PACT Program, particularly for adolescents under 18 who were more concerned about confidentiality than adults. Some providers also noted that adolescents tended to be concerned about using Medi-Cal or private insurance plans, as they feared those services will not be confidential.

Challenges in Accessing Family Planning Services

Ten of sixteen providers that experienced a decrease in adolescent female Family PACT clients during the study period thought that the decline in this subgroup may be the result of changes in adolescents' ability to access family planning services. These changes included reductions in appointment availability, issues related to scheduling, and transportation difficulties.

Reduction in Hours and Appointment Availability

Eight of sixteen providers mentioned a reduction in their hours or appointment availability during the study period. Four providers reduced either adolescent-specific or general hours due to staffing or funding shortages. Reduction in adolescent-only hours, weekend or evening hours, made it difficult for adolescents to access reproductive health services. Clients under 18 were particularly affected as their school schedule was in conflict with clinic hours.

Three providers went through Electronic Medical Record (EMR) implementation during the study period. Planned Parenthood providers specifically mentioned affiliate-wide efforts to transition to EMR since FY 2008-09. On average, these providers said they were operating at nearly fifty percent reduced capacity during the EMR transition. Each appointment took longer while clinic staff learned to use the new EMR system, so providers offered fewer available appointment slots and saw fewer patients overall.

> *"When we first went up on EMR, we had to decrease the availability of appointments and there was a huge decrease in all of our clients. It did take us some time to regain our numbers."*
> – [Placer County Provider]

Furthermore, some providers suggested that adolescents might be disproportionately affected by the EMR transition. Adolescents were more likely to try to make last minute appointments, and failed to obtain one when availability was more limited. Another provider also suggested that adolescents may give up faster on scheduling an appointment and are less likely to try again compared to adults. Therefore, although the number of adults seen at these clinics has recovered to pre-EMR levels, these providers noted that the number of adolescents takes longer to recover.

Changes in Appointment Scheduling

Seven of sixteen providers that experienced a decrease in adolescent female Family PACT clients also experienced a reduction in staff, which may have led to fewer adolescent Family PACT clients seen since clinics had less capacity to recruit and serve clients. Four of these providers saw a decrease in the number of staff working at the front desk or made changes to their appointment scheduling system. As a result, fewer adolescents were able to connect with the clinic to schedule an appointment. Providers acknowledged that compared to adults, adolescents were more likely to have fewer clinic visits due to challenges in appointment scheduling and long wait periods.

Transportation Limitations

In an attempt to expand the range of services and clinic capacity, three providers in the sample moved to new, less convenient, and difficult to access locations. These providers noted that the number of adults at their clinic eventually recovered after an initial decline. However,

adolescents have had a harder time identifying and/or getting to their clinic's new site. Some providers (4 of the 16 that saw a decline in adolescent female Family PACT clients) discussed transportation-related concerns for adolescents. Providers were able to distinguish between age groups when discussing transportation concerns. Compared to adolescents under age 18, those over age 18 were more likely to have their own means of transportation, or could afford public transportation costs. One provider suggested that compared to adolescents seeking family planning services, those seeking non-Family PACT services were likely to come to the clinic with their parents. Adolescents who do not want their parents to know that they are seeking care had fewer options for accessing clinics in less convenient locations.

Changes in Waiting Room Visibility

One component of confidentiality providers discussed was clinic and waiting room visibility. Two providers that saw a decrease in adolescent female Family PACT clients had made changes to their waiting rooms during the study period. These providers have larger waiting rooms where adolescents wait for services with adults seeking services at the clinic. They suggested that adolescents might avoid seeking Family PACT services, as they do not want to wait with adults and risk being seen seeking family planning services. Sharing a waiting room with adults was particularly sensitive for those under 18.

Shifts in Payment Method and Enrollment Procedures

The shift in payment method used for family planning services was identified as a driving factor in the decline of adolescent female Family PACT clients. As discussed in the following section, respondents noted an increase in non-Family PACT payment methods to cover family planning services, either because of provider-led efforts to change enrollment practices, or as the result of an overall increase in the proportion of clients coming in with other payment methods, such as Medi-Cal or private insurance.

Provider-Led Efforts to Enroll Adolescents in Comprehensive Publicly Funded Programs

Although most providers did not experience any significant changes in eligibility screening or enrollment policies or procedures during the study period, four of sixteen providers discussed prioritizing enrollment in certain programs over Family PACT. Two of these providers had directed enrollment into other programs, such as the Medi-Cal Minor Consent Program, [i] county-run health plans, or other Medi-Cal Managed Care Programs. This finding is not surprising, given data from the Research and Analytic Studies Branch (RASB), California Department of Health Care Services showing that the total number of female Medi-Cal beneficiaries ages 0 to 18 increased by 10% between 2008 and 2010. [15-20] Providers thought these changes in enrollment practices were major factors in reducing their adolescent Family PACT numbers. Other providers that were not primarily family planning providers also discussed a push to enroll clients into more comprehensive programs, such as Medi-Cal Minor Consent, to cover non-family planning health concerns. As these providers increased enrollment of adolescents in other programs, they noted that the number of adolescents enrolled in Family PACT dropped dramatically.

[i] Medi-Cal Minor Consent or Medi-Cal Sensitive Services provides services related to family planning, sexually transmitted diseases, sexual assault, drug and alcohol abuse treatment and other services, to minors without parental consent. However, clients must renew eligibility every 30 days, compared to every year for Family PACT.

> *"Adolescents themselves have very little understanding of how they get free services. I don't think they understand the difference between insurance and Family PACT and all the rest of these things. If there is any difference in adolescents using Family PACT for services, it is because we are signing them up at a different rate and not because they are making any decisions."*
> – [San Mateo County Provider]

Although respondents did not directly discuss the reason for the shift in payment methods or changes in enrollment practices, it appears that some providers were taking steps to prepare for health care reform. The two providers making concerted efforts to shift enrollment into other programs had increased the number of staff dedicated to enrollment and billing inquiries. These enrollment specialists worked with clients to help them enroll in more comprehensive programs, including county-run health plans. One provider indicated that all patients under the age of 21 were encouraged to enroll in Medi-Cal Minor Consent before offering Family PACT as a coverage option. This is largely because the clinic can provide care that is more comprehensive and receive higher rates for reimbursement of services if clients are enrolled in the Medi-Cal Minor Consent Program.

> *"Adolescents come in saying, 'I want to have an STD check' or 'I have discharge' or something like that and we are encouraging them to use birth control and often starting them on it the same visit. Minor Consent Medi-Cal is much more [inclusive] about what they cover for our patients, so we turn to that whenever possible."*
> – [San Mateo County Provider]

Increased Use of Parents' Private Insurance or Medi-Cal

Other respondents noticed an increased number of adolescents coming in with their parents' Medi-Cal or private insurance card, independent of provider actions. Five of sixteen providers said that economic changes in their communities contributed to the trend they saw in adolescent female Family PACT client participation. Specifically, these respondents thought that the economic downturn affected the number of Family PACT clients they serve by way of larger percentages of their community becoming eligible for Medi-Cal or other public programs. A Contra Costa County provider stated, "A lot of the young people's parents have gotten coverage under CCHP (Contra Costa Health Plan) or Medi-Cal, and I think that we are seeing teens that have those [methods of] coverage also."

Although some providers discussed economic changes as a contributing factor to the increasing percentage of their population using other payment methods, providers in general stressed that adolescents under age 18 rely on and use Family PACT to access confidential family planning services. A Los Angeles County provider stated, "For most [of our adolescents] that are in Healthy Families or Medi-Cal, it is an issue of access: either [not having] their card, or the fear of [services] not being confidential."

Some of the providers that saw a decrease in adolescent female Family PACT clients (5 of 16) noted that some adolescents are becoming comfortable using their parents' Medi-Cal or private insurance for family planning services, or going directly to private providers for care. Some providers suggested that 18-19 year old adolescents were more likely to use private insurance compared to adolescents under 18, as they exhibited a higher comfort level in seeking family planning services under their parents' health insurance plans. Some provider sites also

increased their capacity to accept private insurance methods, allowing adolescents the option of using alternate forms of payment.

> *"There's a possibility patients are using their parents' private insurance. With more communication with minors and parents than there used to be, maybe they're talking with their parents more about [family planning needs] and their parents are taking them to their private doctors for birth control and gynecological services."*
> – [San Diego County Provider]

Other Factors Contributing to the Decline

While most of the providers interviewed attributed the decline in adolescent female Family PACT clients to cuts in marketing and outreach efforts, reduced access to family planning services, or changes in enrollment practices, other themes emerged as factors contributing to the declining numbers of adolescent female Family PACT clients.

Provider-Led Efforts to Increase Use of Long-Acting Reversible Contraceptives (LARCs)

Although the percentage of adolescents using LARC methods was quite low at most of the providers we interviewed, four of the providers that saw a decrease in adolescent female Family PACT participation noted that their clinic started promoting LARC methods to adolescents during the study period. These comments echo the Family PACT Program-wide increase in adolescent LARC use. Similar to the increased use of implants, the proportion of adolescent clients receiving intrauterine contraception (IUC) services increased from 2.9% in FY 2008-09 to 3.2% in FY 2009-10.[21] Two of the four providers offered staff training specifically on LARC use for adolescents, which allowed their clinicians to comfortably recommend and encourage LARC methods to adolescent clients.

> *"Medical providers and clinic staff now understand that it's okay for adolescents to have an IUD. I think in the past - five years ago or before - adolescents were not counseled on IUDs or LARCs. That has shifted in the last three years and there has been more knowledge spread on how it's okay for adolescents to have an IUD in place."*
> – [San Diego County Provider]

The four providers interviewed promoting LARC use stated that their efforts were particularly focused on adolescents under 18. Although there was no consensus on how use of LARC methods affected trends in adolescent female Family PACT participation, providers that saw a decrease in clients from this subgroup thought that increased LARC use resulted in fewer return visits for family planning services. Depending on the method used, adolescents may only need to seek family planning services every few years and would not contribute to a provider's annual client population in subsequent years.

> *"We have a lot more adolescents that are choosing long-acting birth control methods, so that has had some impact. Before they were coming back pretty much yearly at least for birth control, now they may not need to return for 3 or 5 years, depending on which method they choose."*
> – [Solano County Provider]

Change in Adolescents' Sexual Behavior, Knowledge and Attitudes

Despite previous research indicating a decline in adolescent sexual activity at the national level,[22] providers we interviewed thought that adolescents' need for family planning services had either increased or stayed the same over the last few years. Four of the sixteen providers that saw a decrease in adolescent female Family PACT clients thought that adolescents lacked sexual and reproductive health knowledge, which some attributed to cuts in sex education in schools.

> *"One thing that hasn't changed is the teens' ability to negotiate their sexual encounters. I hear again and again that 'I didn't want to have sex, but we ended up having sex. No contraception was used. No condom was used, because he said we didn't have to.' There's a lot of that, which is a pretty unfortunate, consistent thing that's been happening in the adolescent community."*
> – [Alameda County Provider]

Move toward Comprehensive Clinical Services

Four of the sixteen providers that saw a decrease in adolescent female Family PACT clients discussed a shift in clinic priority and practice to focus more on comprehensive services, including primary care services. These providers were less likely to enroll adolescents in Family PACT, as they are encouraging them to seek comprehensive health care and comprehensive coverage. Therefore, adolescents seeking comprehensive services were less likely to be enrolled in Family PACT. Similarly, these sites noted decreased availability of appointment slots for last-minute family planning services, as slots were already filled by primary care appointments.

Increased Access to Other Locations

Many providers that saw a decrease in adolescent female Family PACT clients also attributed the decline in this population to other providers in the community either opening new sites or expanding their services. Ten of sixteen providers reported that new locations could potentially attract adolescent patients, especially if these sites are close to schools, offer walk-in birth control appointments, or provide non-family planning services. Similarly, providers indicated that more adolescents under 18 might be utilizing school-based health centers for both reproductive health and general health concerns. The loss of clients to other Family PACT providers would not necessarily explain the decline in total adolescent female Family PACT clients at the state level. However, providers recognized it was possible that the new sites or sites with expanded services may be enrolling more patients under non-Family PACT Programs, such as Medi-Cal and county-run health plans.

Findings from Providers with an Increase in Adolescent Female Family PACT Clients

Interviews with five providers that experienced an increase in adolescent female Family PACT clients helped identify factors central to female adolescent enrollment in Family PACT. The analysis of comments from this group of providers also supported findings of factors driving the decline in adolescent female Family PACT clients, by validating the directionality of a given factor and its corresponding outcome. While agencies with decreases in adolescent clients experienced dramatic cuts in marketing and outreach efforts, struggled with access limitations, and selectively enrolled patients in other public programs, agencies with increases had boosted

their marketing and outreach efforts, improved access for adolescents, and encouraged Family PACT enrollment.

Increased Proximity and Collaboration with Schools

While providers that experienced a decrease in adolescent female Family PACT clients were forced to reduce marketing and outreach efforts, peer educator programs, and partnerships with schools and community organizations, providers that saw an increase in this subgroup emphasized the importance of these factors in getting adolescents to utilize family planning services. Proximity to schools or operating school-based health centers were also key components in improving access to services for adolescents. The provider sites located near or in schools dramatically reduced the transportation burden to access family planning services.

Emphasis on Adolescent-Friendly Appointments

Providers that saw an increase in adolescent female Family PACT clients confirmed the importance of ease in appointment scheduling and short wait times in increasing access to adolescents. Three of the five providers that saw an increase in this population added walk-in appointments or adolescent-specific hours. These providers also focused on one or more strategies, including reducing wait periods, maximizing the number of “same-day” clinical services, or streamlining processes for accessing condoms and emergency contraceptives. In addition to expanded and flexible hours, an emphasis on confidential, peer-focused services was important in creating an adolescent-friendly environment at these provider sites.

Improving Family PACT Eligibility Screening and Enrollment Procedures

Four of the five providers that experienced an increase in adolescent female Family PACT clients made significant efforts to implement efficient eligibility screening and enrollment procedures, and added knowledgeable staff to aid in Family PACT enrollment. Furthermore, unlike providers that experienced a decrease in adolescent female Family PACT clients, providers that experienced an increase in this client subgroup prioritized Family PACT enrollment for women and adolescents of reproductive age who expressed a need for family planning services over and above Medi-Cal. Although some of these providers saw an increase in the use of public insurance options such as Medi-Cal and county-run health plans, they also indicated that adolescents under 18 seeking services at school-based centers were more likely to use Family PACT compared to other public programs due to its confidentiality.

Comparison of Adolescent Female Family PACT Clients to Overall Clients Served

In order to understand the context of the trends in adolescent female Family PACT client participation, we asked providers about their overall trends in the number of clients served. All five providers that saw an increase in adolescent female Family PACT clients also reported an increase in overall patients served. These providers largely attributed the increase in the number of patients served to efforts that increased their program’s capacity, such as adding additional locations where they provided care, and/or expanding marketing and outreach efforts. Most of these providers also had coordinated efforts to increase services at school-based health centers. Although these efforts could increase the number of patients reimbursed from all types of health insurance coverage, it appears that these sites are primarily reliant on Family PACT to cover the family planning needs of their adolescent population.

Conversely, providers that experienced a decrease in adolescent female Family PACT clients were a heterogeneous group. Of the 16 providers interviewed, approximately half of the providers saw an increase in the overall number of patients served. The decline in adolescent female Family PACT participation at these providers was largely the result of a push to enroll their patients in Medi-Cal, or an overall shift in their clinic focus to providing comprehensive primary care services. These changes and adolescents' access to family planning are particularly important to monitor carefully during the health reform transition.

DISCUSSION AND CONCLUSION

The Family PACT Program is an important source of family planning and reproductive health care for adolescents in California. This study used a mixed-methods approach to examine the decline in adolescent female Family PACT clients between FY 2004-05 and FY 2010-11 and explore potential contributing factors. The reasons for the decline in adolescent female participation in Family PACT are complex and interrelated. Although study results cannot definitively rule out any potential contributing factor, or attribute the precise extent to which each factor has contributed to the decline, we identified several leading factors.

Findings suggest that the decline in adolescent female Family PACT clients is not driven by demographic changes in the population. Although the number of adolescent females in the population fell over the study period, the number of adolescent female Family PACT clients fell more rapidly. The decline in adolescent female Family PACT participation rates occurred widely across demographic and geographic subgroups, including younger and older adolescents, all racial/ethnic groups except for African Americans, and all geographic regions except for the Los Angeles/San Diego Corridor.

Similarly, study results do not support the notion that the decline in adolescent female use of Family PACT can be explained by a decline in adolescent sexual activity. According to data from the 2006-2010 National Survey of Family Growth (NSFG), 56% of all women have had sex by their 18th birthday, and 74% of all women have had sex by their 20th birthday.[23] In California, the proportion of 15 to 19 year old adolescent females who are in need of family planning services that receive them through Family PACT decreased from 44% in FY 2003-04 to 40% in FY 2006-07, demonstrating a substantial existing need for family planning services among adolescents.[24] Indeed, the providers we interviewed observed that adolescents' need for family planning services had either stayed the same or increased over the last few years. Many expressed concerns about the large unmet need for family planning services among sexually active adolescents in their community, leaving them at risk for unintended pregnancy and sexually transmitted infections.

Although study findings suggest that increased adoption of long-acting reversible contraception (LARC) is not a significant factor contributing to the decline in adolescent female clients, it may affect trends in this client subgroup in the future. Over the past several years, there has been an expansion in the use of LARC methods, which The American College of Obstetricians and Gynecologists has recommended as safe and effective for adolescents.[25] In FY 2009-10, the proportion of adolescent Family PACT clients receiving intrauterine contraception (IUC) services was 3.2%, compared to 2.9% in FY 2008-09.[21] There has also been a similar trend in adolescents' use of implants.[21] Most of the providers interviewed noted an increase in LARC use among their adolescent clients and felt that adolescents may return to clinics less often after receiving a LARC method. As adolescent use of LARC methods increases, we will need to understand how this trend impacts return visits and use of other sexual and reproductive health services.

Turning to provider practices, we found that reductions in marketing and outreach were a major factor contributing to the decline in adolescent female Family PACT clients. Since 2008, California has cut $33.5 million in funding for Teen Pregnancy Prevention (TPP) programs, which supported innovative, community-based efforts to educate adolescents about sexual and reproductive health, and link them to family planning services.[14] Results from the quantitative analyses indicated that TPP grantees and partners initially served more adolescent female

Family PACT clients and experienced larger declines in this client subgroup than providers with no TPP program involvement. Similarly, many providers interviewed pointed to reductions in their marketing and outreach efforts, which were driven by funding cuts, as the primary reason why the number of adolescent female clients declined at their sites. Providers also received fewer referrals from former TPP grantee agencies. Due to the overall loss of education and outreach efforts in their communities, providers expressed concern that adolescents were generally less knowledgeable about reproductive health and less aware of Family PACT services. While the providers that documented increases in adolescent female Family PACT clients formed new partnerships with schools and expanded their outreach, the clinics that saw decreases in this subgroup struggled to find low-cost, effective ways to reach adolescents.

We also found that changes in provider practices which reduced adolescent access to services contributed to the decline in adolescent female Family PACT clients. Some providers relocated to less convenient locations, which were further away from schools or harder to reach by public transportation. Other providers reduced clinic hours or changed their appointment system, which made it particularly difficult for adolescents under 18 to access family planning services outside of school hours. Another important change was the reduction in appointment availability during the implementation of electronic medical records (EMR). Past research has shown that a substantial fraction of practices experience a loss of productivity during EMR implementation of 10-15 percent for at least several months.[26] Providers we interviewed explained that the implementation of EMR tends to reduce clinic capacity and adolescents are particularly slow to return once clinic capacity is restored. The cuts in State funding for marketing, outreach, and education efforts that were occurring simultaneously likely exacerbated providers' difficulty retaining and recruiting adolescent clients during and following EMR implementation.

Study findings also suggest that for some providers, a shift towards encouraging enrollment in Medi-Cal and other programs was central to the decline in adolescent female Family PACT clients. Between 2008 and 2010, the total number of female Medi-Cal beneficiaries ages 0 to 18 increased by 10%.[15-20] Reflecting this statistic, half of the providers we interviewed who experienced a decline in adolescent female Family PACT clients discussed efforts to encourage enrollment in comprehensive programs, such as Medi-Cal, and to offer more comprehensive health care services. Furthermore, in some counties where county-run health plans have been established to serve low-income populations, adolescents may be encouraged to enroll or use their parents' coverage. Notably, providers mentioned that one of the barriers to enrolling adolescents in other programs is heightened concern about confidentiality among this age group. Although respondents did not directly discuss the reason for the shift in payment methods or changes in enrollment practices, it appears that some providers were taking steps to prepare for health care reform. Research incorporating data on adolescent female use of family planning under all publicly funded insurance programs is needed, in order to isolate the impact of trends in insurance coverage on adolescent female Family PACT participation.

Many steps can be taken to help prevent further reductions in adolescent females' use of Family PACT and Medi-Cal family planning services. Based on the findings presented in this report, UCSF offers the following recommendations:

→ The decline in adolescent female Family PACT clients should not be mistaken for a decline in adolescents' need for clinical services. Efforts should continue to support family planning and reproductive health care services for youth, given the long-term social, medical, and economic impacts of unintended pregnancy on parents, children, and society.

→ Efforts should support increasing adolescents' access to services:

- Offer providers more information and trainings related to increasing adolescents' access to services, featuring best practices for appointment availability and scheduling, such as walk-in hours for adolescents.

- As part of EMR implementation, encourage providers to establish online appointment scheduling systems and ways to interact with clients via email (or other means that clients prefer) during and after implementation.

→ Efforts should support increasing adolescent-focused marketing and outreach:

- Offer providers more information and trainings related to marketing and outreach to adolescents, including best practices for peer educator programs and relatively low-cost social media and Internet marketing strategies. Incorporate strategies for tailoring marketing and outreach to adolescents under age 18, as compared to 18-19 year old adolescents.

- Support providers in their efforts to re-partner and expand their partnerships with community-based organizations in order to extend their marketing and outreach, particularly in schools and community settings that offer direct access to adolescents.

- Develop updated, adolescent-friendly materials (e.g., fact sheets, posters) to advertise Family PACT and Medi-Cal family planning services.

- Develop a page on the Family PACT website that includes essential information about the program with language and format that are particularly accessible to adolescents.

→ Specific efforts will be needed in this time of major health insurance and health care delivery transformation, resulting from the implementation of the Affordable Care Act:

- The Family PACT program has been a leader in ensuring family planning access to the state's low-income adolescents and adults, many of whom now will be eligible for health insurance enrollment through the Medi-Cal, Medi-Cal Minor Consent, and Covered California programs. Monitor adolescent use of family planning services across all programs.

- Continue to support providers as they prepare to successfully enroll clients – adolescents and adults – into programs for which they may be newly eligible, both to support their family planning and broader primary care needs.

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APPENDIX A: METHODOLOGY

Overview

The study used a mixed-method approach for collecting and analyzing data. We began by analyzing Family PACT administrative data and other publicly available secondary data, such as the American Community Survey data. We analyzed trends in adolescent female Family PACT clients and used growth modeling techniques to examine factors affecting change in the number of adolescent female Family PACT clients served per provider. All analyses focused on females, since the number of male adolescent clients increased by 25% between FY 2004-05 and FY 2010-11. Based on analysis of administrative and additional secondary data, we selected a subsample of 21 provider sites for further data collection. We conducted interviews with clinic administrators at these selected provider sites, which focused on uncovering new factors linked to the decline in adolescent female Family PACT participation. Special attention was given to policies and practices that may be particularly relevant for adolescent recruitment and retention. We analyzed interview data to identify key factors and themes, representative quotes, and to inform any necessary modifications to the secondary data analysis.

Methodology for Question 1: Has participation in Family PACT declined within subgroups of adolescent females?

The analysis of trends in adolescent female Family PACT clients from FY 2004-05 to FY 2010-11 was based on Family PACT administrative (paid claims and enrollment) data and intercensal population estimates from the California State Department of Finance.[27]

We examined trends for three different measures for all females under the age of 20 and within age, race/ethnicity, and region subgroups:

- The total number of Family PACT clients served, excluding those who received only laboratory services.
- The total population of 10-19 year old females.
- The Family PACT participation rate, calculated as the ratio of the number of Family PACT clients (excluding those who received only laboratory services) to the total population, expressed as a percentage. Notably, the denominator includes all adolescents, including those who are not sexually active.

Methodology for Question 2: How are provider and county characteristics associated with decreased Family PACT participation among adolescent females?

Data Sources

We used Family PACT administrative (paid claims and enrollment) data for FY 2005-06 through FY 2010-11. To capture the range of variables that may be associated with changing numbers of adolescent female Family PACT clients, the study also incorporated data from a variety of additional sources:

- Demographic and socioeconomic composition data was obtained from the American Community Survey (ACS), 1-year estimates from 2005 (the first year of data available) to 2010. American FactFinder was used to collect all detailed tables at the county level.[28]

- Data on the size and racial composition of the adolescent female population per county was obtained from the California State Department of Finance, intercensal population estimates for 2000 to 2010.[27]

- Data on the annual adjusted grade 9-12 dropout rate was obtained from the California Department of Education, Educational Demographics Unit. DataQuest was used to obtain detailed tables at the county level for FY 2005-06 through FY 2010-11.[29]

- Data on Medi-Cal enrollment trends by age, gender, and county was obtained from the California Department of Health Care Services, Research and Analytic Studies Branch for 2005 to 2010.[15-20]

Measures

Number of adolescent female Family PACT clients served – The dependent variable was the number of female Family PACT clients under age 20 served, excluding those who received only laboratory services. Clients who visited a provider on multiple occasions within the same year were counted just once. If clients received services at more than one Family PACT provider, they were included in each provider's count of clients served.

Provider characteristics – Provider type included private, Planned Parenthood, or public, non-Planned Parenthood. The analyses distinguished between Planned Parenthood providers and other types of public providers, such as public health department clinics, because past research has shown that Planned Parenthood and other independent family planning clinics provide care to the largest share of women visiting publicly funded clinics for contraceptive services.[30]

A binary variable indicated whether the provider was located in an urban Medical Service Study Area (MSSA).[ii]

We created a categorical variable to indicate the provider's involvement in one of three California state-funded Teen Pregnancy Prevention (TPP) programs in FY 2006-07 (Table 6). TPP programs provided community-based organizations with funding for prevention education, youth development, and clinical linkages to family planning and reproductive health services. The State eliminated or significantly reduced TPP funding beginning in 2008 and as a result, most former grantees curtailed their TPP programs.[14] We created the variable using data collected in FY 2006-07 as part of a UCSF study on clinical linkages between Family PACT providers and TPP programs.[31] The three-category variable included grantee, partner, or neither in FY 2006-07. Some providers may be current I&E grantees or partners; data on current TPP funding and partnerships was not available for this study.

[ii] To identify MSSAs, provider site address as of the fiscal year of interest was geocoded using the California Environmental Health Tracking Program's (CEHTP) Geocoding Service and spatially joined to the MSSA spatial data layer, based on US Census 2000. MSSAs are created each decade and maintained by California's Office of Statewide Health Planning and Development. There are 541 total MSSAs in California, with 299 classified as Urban. In brief, Urban MSSAs are designed to contain between 75,000 to 125,000 people and are, at minimum, 5 square miles.

Table 6: Teen Pregnancy Prevention (TPP) Program Total Allocations in FY 2007-08 and FY 2011-12 (in millions of dollars)

Program	Years Funded	Total Funding Allocation	
		2007-08	2011-12
Community Challenge Grant (CCG)	1996-2011	$20.0	$0
TeenSMART Outreach Program (TSO)	1998-2008	$1.8	$0
Information & Education Program (I&E)	1974-present	$3.1	$2.0

Source: Adapted from Malvin J, Yarger J, Brindis C. *Teen Pregnancy Prevention in California after State Budget Cuts.* Bixby Center for Global Reproductive Health, Philip R. Lee Institute for Health Policy Studies, University of California, San Francisco. February 2013.

The analyses included two additional provider characteristics that varied annually: percent of adolescent female clients that received a long-acting contraceptive method (IUD, implant, or sterilization); and the number of adult (ages 20+) female clients served.

County characteristics – The analyses included measures of a variety of demographic and socioeconomic characteristics at the county level that may be related to the number of adolescent females seeking Family PACT services:

- Number of adolescent females per Family PACT provider: We created a ratio variable to represent the number of adolescent females per Family PACT provider, because these two measures are highly correlated (i.e., more populous counties tend to have more Family PACT providers).

- Fertility rates: Unfortunately, reliable county-level, annual estimates of adolescent sexual activity were not available for the study. However, we included multiple measures of fertility: the birth rate for women 15 to 19 years old, the birth rate for women 15 to 50 years old, and the birth rate for single women 15 to 50 years old.

- Other demographic characteristics: The analysis included the percent of the adolescent female population that is African American, the percent of the adolescent female population that is Latina, the percent of the total population that is foreign-born, and the percent of the population five years and older that speaks a language other than English at home (as compared to English only).

- Income, poverty, use of public assistance, and unemployment: Measures of income included the median and mean family income as well as per capita income. We included three separate measures of poverty, defined as the percent of the population whose income in the past 12 months was below the Federal Poverty Guidelines, for all families, all people, and all people under 18 years. In addition, we examined the percent of households with cash public assistance income and the percent of families with Food Stamps/SNAP benefits in the past 12 months. Unemployment in a county was measured as the percent of the population age 16 and older in the civilian labor force and unemployed.

- Educational attainment: Measures of educational attainment included the percent of the population age 25 and older who are high school graduates or higher, the percent with a bachelor's degree or higher, and the grade 9-12 dropout rate.

- Medi-Cal participation: We also included a measure of the percent of the female population age 0-18 that are considered "certified eligible beneficiaries." This includes beneficiaries who are deemed qualified for Medi-Cal by a valid eligibility determination and have enrolled in the program. Family PACT recipients are excluded. The Department of Health Care Services, Research and Analytic Studies Branch (RASB) released a statistical brief that explains the methods for calculating Medi-Cal enrollment numbers in greater detail.[32]

Sample

The analytic sample included providers reimbursed for delivering Family PACT services to at least one female client under age 20 between FY 2005-06 and FY 2010-11. County-level data was not available for 18 of the 58 counties due to having fewer than 65,000 people; these include Alpine, Amador, Calaveras, Colusa, Del Norte, Glenn, Inyo, Lassen, Mariposa, Modoc, Mono, Plumas, San Benito, Sierra, Siskiyou, Tehama, Trinity, and Tuolumne counties. Excluding the 64 providers located in these low population counties, our final sample consisted of 2,684 Family PACT providers.

Most providers in the sample were private providers (63%) and located in urban MSSAs (83%) (Table 7). Only a small percent of providers were TPP grantees (5%) or partners (7%).[iii]

Table 7: Characteristics of Providers Included in Growth Models (N=2,684)

Provider Characteristic	Percentage
Provider type	
Private	62.9%
Planned Parenthood	3.8%
Public, not Planned Parenthood	33.3%
TPP program involvement	
Grantee	5.4%
Partner	7.0%
Neither grantee nor partner	87.6%
Urban MSSA	83.2%

Table 8 presents mean values for the time-varying provider and county characteristics per year.

[iii] We expect that a significantly larger percentage of Family PACT providers were affected by the TPP funding cuts, as TPP programs raised adolescent awareness about sexual and reproductive health and referred adolescents to Family PACT providers who did not have formal collaborative partnerships with TPP grantees.

Table 8: Mean Values of Provider and County Characteristics, FY 2005-06 to FY 2010-11 (N=2,684)

	2005-6	2006-07	2007-08	2008-09	2009-10	2010-11
Provider characteristics						
Female adolescent Family PACT clients served	104.1	103.6	105.6	107.3	104.3	98.0
Female adult Family PACT clients served	436.0	447.4	466.9	494.6	513.5	519.4
Percent of female adolescent Family PACT clients receiving long-acting contraception	0.8	1.2	1.7	2.0	2.6	2.6
County demographic characteristics						
Number of female adolescents per Family PACT provider	1163.4	1108.9	1074.7	1042.5	969.8	960.4
Percent of female adolescents White	30.9	30.1	29.3	28.6	27.4	26.1
Percent of female adolescents Latina	48.5	49.3	50.1	50.9	52.4	52.9
Percent of female adolescents African American	7.2	7.1	7.0	6.9	6.8	6.3
Percent of population foreign born	28.6	28.5	28.8	28.2	28.4	28.6
Percent of age 5+ speaks non-English language at home	NA	NA	46.3	46.0	46.8	47.8
Fertility rate single women	35.1	33.5	34.7	37.7	37.2	34.6
Fertility rate women ages 15-50	59.3	54.5	54.6	59.9	57.9	53.1
Fertility rate women ages 15-19	28.4	24.1	24.9	30.5	26.2	23.4
County socioeconomic characteristics						
Percent of age 25+ high school graduates	77.7	77.9	78.1	78.0	78.5	78.5
Percent of age 25+ with a bachelor's degree	27.3	27.0	27.5	27.5	27.8	28.2
High school dropout rate	3.5	0.1	0.1	0.1	0.0	0.0
Percent of households cash assistance	3.8	3.5	3.2	3.4	4.0	4.3
Percent of households Food Stamps	NA	NA	4.8	5.6	6.8	8.1
Median family income in $1000s	58.4	61.6	64.8	66.6	64.0	62.4
Mean family income in $1000s	78.8	82.1	87.0	89.9	85.5	84.0
Per capita income in $1000s	25.3	25.4	27.1	27.9	26.4	25.9
Percent of families in poverty	11.6	10.9	10.4	11.2	11.8	13.0
Percent of total population in poverty	14.6	14.4	13.5	14.4	15.3	17.0
Percent of children in poverty	20.2	19.7	18.7	19.9	21.3	23.3
Percent unemployed	4.8	4.3	4.3	4.9	7.4	8.3
Percent of females age 0-18 Medi-Cal beneficiaries	36.1	35.9	35.8	36.6	39.3	40.9

Note: NA = data not available for that year.

Analytic Approach

We used individual growth modeling techniques to analyze change in the number of adolescent female Family PACT clients per provider.[33,34] The analyses proceeded in four main steps:

1. Growth in adolescent female Family PACT clients per provider was estimated using an unconditional growth model, which includes time but no other predictors.

2. We performed separate mixed-effects models to estimate the influence of each provider and county characteristic on the number of adolescent female Family PACT clients. Interaction terms between the non-time varying provider characteristic and the year variables indicate how change varies by provider characteristics.

3. We combined all significant predictors in one model predicting change in adolescent female Family PACT clients. We considered variables for inclusion in the regression model if their *P* value in bivariate models was .25 or less. Of course, demographic, social, and economic characteristics are often correlated with one another. For variables that appeared to be collinear (e.g., many of the county characteristic variables), we chose to retain variables with the strongest effect in bivariate models.

4. We estimated a reduced mixed-effects model, retaining only those covariates that were significantly associated with the outcome ($P<.05$).

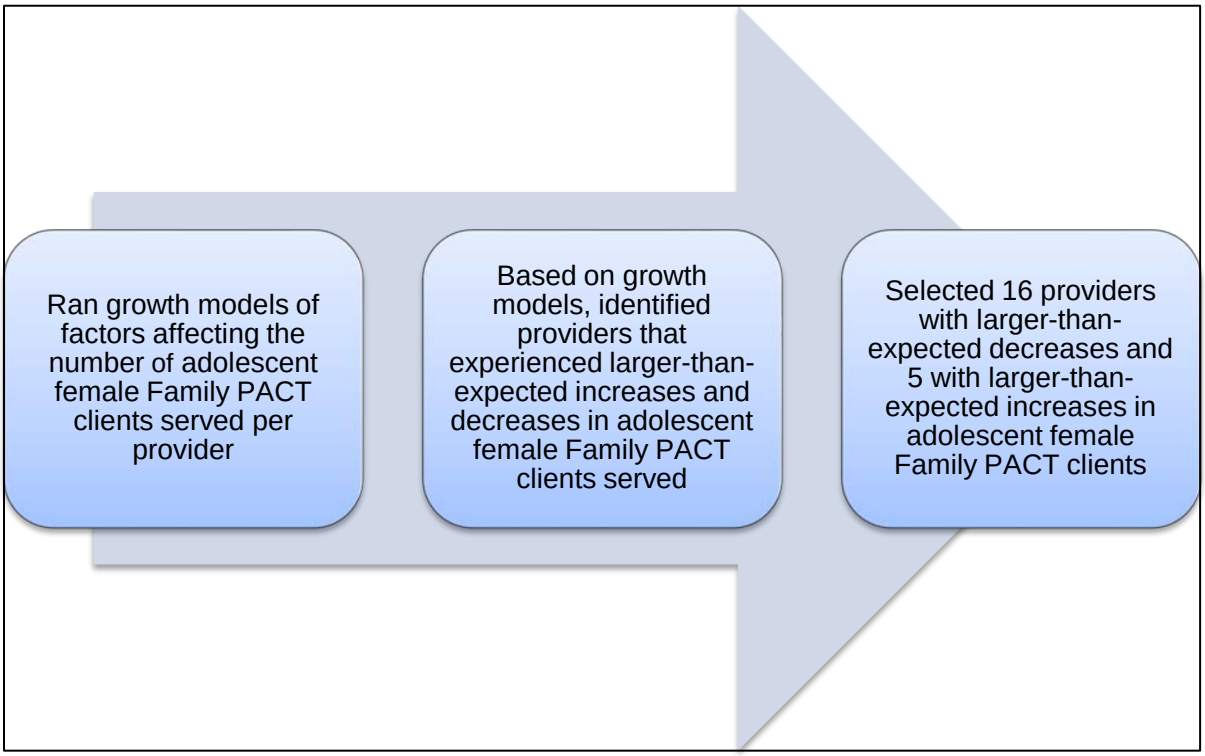
Methodology for Question 3: What changes in service delivery and outreach practices might explain the decline in Family PACT participation among adolescent females?

Sampling

For this study we systematically selected and interviewed a set of Family PACT providers who experienced large increases or decreases in adolescent female Family PACT clients served that were not explained by variables included in the quantitative analysis.

Figure 12 presents the steps followed in selecting the interview sample. As described above, we first analyzed Family PACT administrative data and additional secondary data using individual growth modeling techniques to identify factors affecting change in the number of adolescent female Family PACT clients at the provider level. Second, for all providers, we computed residual values, which equal the difference between the change in the number of clients in this subgroup predicted by the growth models and the provider's actual change in the number of clients in this subgroup.

Figure 12: Process for Selecting Interview Sample



We wanted to learn more about providers that experienced larger changes in adolescent female Family PACT clients than the growth model predicted. Thus, we selected a subsample of 21 provider sites whose residual values were more than three standard deviations from the residual mean for further qualitative data collection. We were particularly interested in uncovering reasons for the decline in female adolescent clients, so we chose to interview 16 providers that reported larger decreases than the model predicted and 5 providers that reported larger increases than the models predicted.

Focusing on providers that experienced larger-than-expected increases or decreases may reveal additional factors related to change in adolescent female Family PACT clients that had not previously been considered. It also may uncover methodological reasons for why providers experienced larger changes in this client subgroup and suggest ways to correct for these problems in the future.[35]

Interview Guide

We developed the semi-structured interview guide based on a review of academic and non-academic literature. The guide was shared with the Office of Family Planning (OFP) for review and feedback. The interview guide included questions about trends in adolescent female clients, factors affecting trends in adolescent female clients (e.g., the need for family planning services, marketing and outreach, confidentiality and consent) and strategies for preventing additional decline in adolescent clients. The questions focused on changes that occurred between FY 2008-09 and FY 2010-11, because recall bias tends to increase when asking about longer time periods. The interview guide was pilot tested with a subsample of three Family PACT providers and then revised based on the pilot test findings (see Appendix B for the full interview guide).

Data Collection and Sample Characteristics

To initiate the recruitment process, we first mailed a letter to the Family PACT agency's Medical Director on record, which described the study and informed them that a UCSF researcher would follow up via telephone. Approximately one week later, we called the Medical Director to identify the Clinic Director or other clinic administrator most appropriate for the interview. In some cases additional phone calls or e-mail messages were necessary in order to schedule the interview with the appropriate individual.

Informants at all 21 sample providers agreed to participate in telephone interviews. Table 9 shows characteristics of the providers that participated in the interviews. Note that the sample includes a large percentage of providers in the Los Angeles region (44% of the decrease sample and 80% of the increase sample) and no providers in the San Joaquin/Central Valley region. Most providers were located in urban areas (94% of the decrease sample and 100% of the increase sample). The sample did not include private providers, and Planned Parenthood providers made up a larger percentage of the decrease sample (56%) than the increase sample (20%). Participation in TPP as either a grantee or partner was more common in the increase sample than the decrease sample (80% vs. 56%).

Table 9: Characteristics of Providers Participating in Interviews (N=21)

	Decrease Sample (n=16)		Increase Sample (n=5)	
	Mean	SD	Mean	SD
Adolescent female Family PACT clients served				
FY 2005-06	1055.44	881.44	695.60	788.34
FY 2006-07	1257.63	879.64	692.20	770.45
FY 2007-08	1570.25	983.72	610.00	680.89
FY 2008-09	1560.88	819.75	764.60	783.35
FY 2009-10	1342.19	709.81	997.00	972.26
FY 2010-11	1144.50	628.12	1140.80	902.40
Region				
Los Angeles/San Diego Corridor	0.44	0.51	0.80	0.45
San Francisco Bay Area	0.19	0.40	0.20	0.45
San Joaquin/Central Valley	0.00	0.00	0.00	0.00
Other	0.38	0.50	0.00	0.00
Urban MSSA	0.94	0.25	1.00	0.00
Provider type				
Private	0.00	0.00	0.00	0.00
Planned Parenthood	0.56	0.51	0.20	0.45
Public, non-Planned Parenthood	0.44	0.51	0.80	0.45
TPP program involvement				
Grantee	0.25	0.45	0.20	0.45
Partner	0.31	0.48	0.60	0.55
Neither	0.44	0.51	0.20	0.45

Note: SD = standard deviation

Respondents included Regional Directors, Center Managers/Directors, Adolescent and/or Women's Health Care Managers, and service providers who are also active in administrative duties. Respondents had between one and 30 years of experience working at the provider, and the average years of work experience at the provider was 11 years. In some cases, more than one individual participated in the interview.

We conducted the interviews in February and March 2013. Each interview, which took place over the telephone at a time that was convenient for the respondent, lasted approximately 45 minutes. Prior to the interview, we sent the respondent an introduction to the study, information regarding participation, and Family PACT Enrollment and Claims data on the number of female Family PACT clients served by age group at their site in FY 2008-09 and FY 2010-11. We obtained verbal consent at the beginning of the interview, along with consent to audio-record the interview. Each provider received a $50 Target gift card upon completion of the interview.

Data Analysis

The audio-recorded telephone interviews were transcribed. Based on interview transcriptions, we identified and summarized the factors driving the trend in adolescent female Family PACT clients for each provider. Analysis of summaries was structured around interview questions, structural codes and emerging themes. Summaries were coded and analyzed using Dedoose software to identify overarching themes and any necessary modifications to the secondary data analysis. Representative quotes were added from interview transcripts.

APPENDIX B: INTERVIEW GUIDE

Introduction and Consent

Hello, this is (*Name*) from the University of California-San Francisco. Is this still a good time for you to do the interview?

Before we begin, did you receive the consent form I e-mailed to you?

As you know, this is a study on trends in adolescent Family PACT clients. The interview will take about 45 minutes, and your answers will be confidential.

Can I answer any questions?

Do you agree to participate in the interview?

Do I have your permission to record our conversation?

Thank you. Let's get started!

Interview Questions

Let's start by talking about your work at (*Provider Name*).

1.) How many years have you worked at this practice?

2.) What is your current title?

3.) How many years have you been in this role?

Now I'd like to talk about trends in the number of clients your practice has served since 2008. By your practice, I mean your location at (*address*).

4.) Please tell me about how your total number of clients served has changed over the past five years.

Prompt if "don't know" response:

- *What is your impression? Has your number of clients served increased, decreased, or stayed the same?*

5.) Now let's turn to trends in the number of Family PACT clients served. According to the Family PACT Program data, the number of female Family PACT clients under age 18 went from (#) in FY 08-09 to (#) in FY 10-11, that's an (#)% (*increase/decrease*). Can you tell me more about the change in this Family PACT subgroup?

Prompt for all:

- *Have you seen a similar change for all female clients under 18, not just Family PACT clients?*

6.) According to the Family PACT Program data, the number of female Family PACT clients age 18-19 went from (#) in FY 08-09 to (#) in FY 10-11, that's an (#)% (*increase/decrease*). Can you talk about the change in this Family PACT subgroup?

Prompt for all:

- *Have you seen a similar change for all female clients 18-19, not just Family PACT clients?*

7.) According to the Family PACT Program data, the number of female Family PACT clients age 20 and above went from (#) in FY 08-09 to (#) in FY 10-11, that's an (#)% (*increase/decrease*). Can you talk about the change in this Family PACT subgroup?

Prompt for all

- *Have you seen a similar change for all female clients age 20 and above, not just Family PACT clients?*

Now I have a few questions about how female adolescents pay for services at your practice.

8.) Over the last five years, have you noticed any changes in the percent of female adolescents using Family PACT to pay for services?

Prompt if response does not address:

- *What percent of adolescents used Family PACT five years ago? How about today?*
- *Have you seen a similar change for all female adolescents or only those under 18?*

9.) How about changes in the percent of female adolescents paying for services using other programs, such as Healthy Families?

Prompt if response does not address:

- *Have you seen a similar change for all female adolescents or only those under 18?*

10.) How about changes in the percent of female adolescents using private insurance or paying out-of-pocket?

Prompt if response does not address:

- *Have you seen a similar change for all female adolescents or only those under 18?*

11.) In general, what factors do you feel have influenced the (*increase/decrease*) in adolescent female Family PACT clients at your practice?

Prompt for all

- *Did this factor influence all Family PACT clients or just adolescent Family PACT clients?*
- *(if applicable) Did this factor influence all adolescent clients or just adolescent Family PACT clients?*

Now I'd like to talk about changes in the community your practice serves.

12.) Are you aware of any changes in the community in the past five years that may have affected your number of adolescent female Family PACT clients?

13.) Have you noticed any changes in adolescents' need for family planning services in the past five years?

Prompt if response does not address:

- *How about changes in the sexual behavior or attitudes adolescent clients are reporting?*
- *Were the changes unique to any particular age group, such as under 18 or 18-19 year olds?*

14.) Compared to five years ago, do you think that more adolescents are going elsewhere for family planning services?

Prompt if examples needed:

- *Do you think more adolescents are getting contraception or pregnancy tests from pharmacies?*

15.) Do you think changes in adolescents' use of specific contraceptive methods, such as IUDs and implants, may have contributed to changes in the number of adolescent female Family PACT clients?

Now I'd like to discuss some changes that might have occurred at your practice in the past five years.

16.) Can you think of any changes in Family PACT <u>eligibility</u> policies or practices in the past five years that may have affected the (*increase/decrease*) in adolescent female Family PACT clients?

17.) How about any changes in your clinic's policies or procedures for <u>enrolling</u> adolescents in Family PACT in the past five years (*that may have affected the change in adolescent female Family PACT clients*)?

18.) Can you think of any recent changes in your <u>confidentiality</u> policies or practices in the past five years that may have affected adolescent female Family PACT participation?

Prompt if response does not address:

- *How about changes in adolescents' awareness of confidentiality policies?*
- *Changes in where adolescents wait for services?*

19.) How about changes in your <u>minor consent for care</u> policies or practices in the past five years (*that may have affected adolescent female Family PACT participation*)?

Prompt if clarification needed:

- *By minor consent for care, I mean policies that determine when a minor can consent to health care on their own.*

20.) Can you think of any changes in adolescents' access to your clinic in the past five years that may have affected the (*increase/decrease*) in adolescent female Family PACT clients?

Prompt if response does not address:

- *How about changes in how easy it is for adolescents to get to your clinic?*
- *Changes in adolescent-only clinic hours? (If applicable: change in % of adolescents using adolescent-only hours?)*
- *Changes in walk-in hours for adolescents?*
- *Changes in general appointment availability?*

21.) Now I'd like to hear about any changes in marketing or outreach to adolescents in the past five years. Have there been any changes in marketing or outreach that may have contributed to the (*increase/decrease*) in adolescent female Family PACT clients?

Prompt if response does not address or no/insufficient details provided:

- *How about changes in advertising to adolescents, such as use of street outreach, outreach events, billboards, school newspaper advertising, or social networks?*
- *Can you give me some examples of outreach efforts that changed?*
- *Changes in partnerships with schools, government agencies, or community-based organizations?*
- *Changes in referrals to you from other organizations?*

22.) How about changes in clinical practices in the past five years that may have affected adolescent female Family PACT participation?

Prompt if clarification needed:

- *By clinical practice, I mean things like requiring screening tests for IUDs.*

23.) In the past five years, have you had any staffing changes that may have impacted the number of adolescent female Family PACT clients?

Prompt if response does not address:

- *How about changes in the presence or number of staff who work specifically with adolescents?*
- *Changes in staff training related to serving adolescents or issues particularly affecting adolescents?*

24.) Please tell me about any changes in funding in the past five years that may have affected the number of adolescent female Family PACT clients served.

Prompt if response does not address:

- *What were those sources of funding that changed?*

25.) Finally, can you think of any strategies that the Family PACT Program or providers could take to increase the number of adolescent female Family PACT clients?

That was my last question. I want to make sure I have covered everything that you think is important.

26.) Is there anything you'd like to add?

I also just wanted to double-check your mailing address so that we can send out a thank you note and a gift card. Is your mailing address (*mailing address*)?

Prompt if "no": What's your preferred mailing address?

Thanks so much for taking the time to participate in this interview. If you think of anything else you would like to share, please feel free to contact me.