

Number of oral contraceptive pill packages dispensed and subsequent unintended pregnancy



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Background

Our previous work showed dispensing a year's supply of oral contraceptives at California family planning clinic visits was associated with lower healthcare costs and higher contraceptive continuation. In our first study, women who received a year's supply of pills were more likely to continue use at 15 months after the initial dispensing visit than women who received 1 or 3 packs (43% vs 20-22%). To date, there are no studies of number of pill packs and subsequent pregnancy.

Study design

We compare pregnancy rates between women who received a year's supply (12 or 13 packs) versus 1 or 3 packs using a linkage between contraceptive dispensing claims in California's family planning program Family PACT and pregnancy events in Medi-Cal. We linked 84,644 women who received oral contraceptives in January 2006 with women whose Medi-Cal pregnancy event (birth, miscarriage, abortion or ectopic pregnancy) was likely conceived between January 2006 and January 2007.

We use multivariate logistic regression models to examine the effect of number of cycles of pills controlling for age, parity, race/ethnicity, whether the woman is new to Family PACT and, if an established Family PACT client, whether they have received oral contraceptives in the previous year.

Results

Who receives a year's supply

Most women (58%) received 3 packs, one in five (20%) received 1 pack, 11% received 12 or 13 packs and 10% received another quantity of pill packs. Young women (under age 20) were most likely to receive a year's supply (18%) and women 40 and older were least likely (4%). Asian Americans and white non-Latina women (20% and 19%, respectively) were more likely to get a year's supply; Spanish speaking Latinas were least likely to get a year's supply (3%).

Contraceptive continuation and pregnancies

An estimated 2.8% of women who were dispensed oral contraceptives in January 2006 conceived a pregnancy in the subsequent year whose resolution (birth, induced abortion, ectopic pregnancy or spontaneous abortion) was paid by Medi-Cal. Women who received a year's supply were

Contraceptive continuation and pregnancies conceived in the subsequent year, by number of oral contraceptive packs dispensed in January 2006

	# cycles received at first visit in Jan 06				
	1	3	12-13	other	Total
Continuation at 15 months	21%	25%	40%	38%	27%
Switch to another primary method	11%	10%	7%	10%	10%
Pregnancy conceived*	2.90%	3.30%	1.20%	2.00%	2.80%
Induced abortion*	0.52%	0.63%	0.18%	0.35%	0.53%

**includes only pregnancies in which medical care for the pregnancy outcomes was paid by Medi-Cal

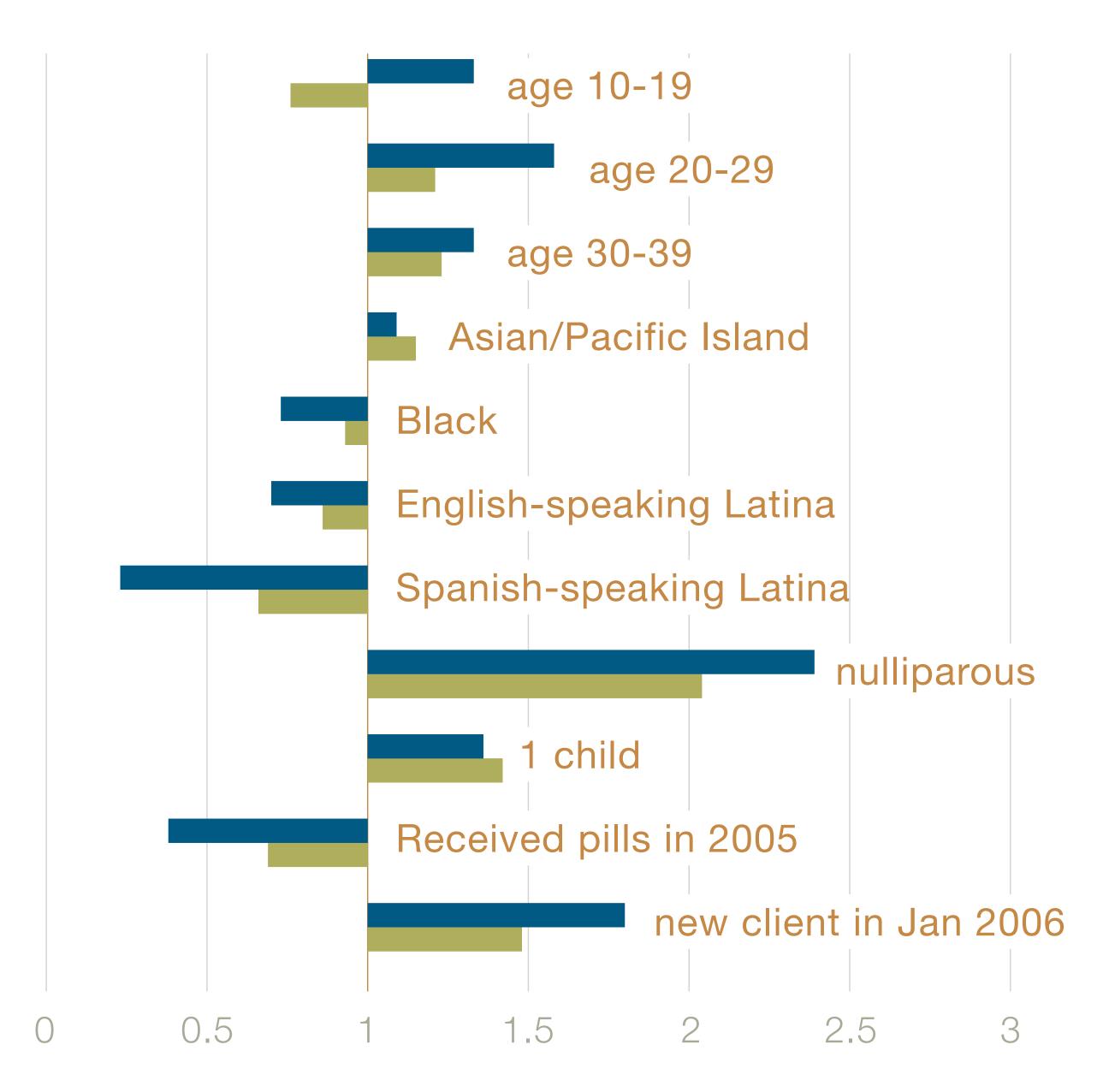
All differences by number of packs dispensed are significant at 0.05 level using Chi-Square test.

less likely to have a pregnancy (1.2% compared to 2.9% of women getting 1 cycle and 3.3% of women getting 3 cycles).

Almost one fifth (19%) of pregnancies ended in an induced abortion. Women who received a year's supply were less likely to have an abortion (0.18% among women who received a year's supply compared to 0.63% among women who received 3 cycles).

Odds of receiving a year's supply (YS) among women dispensed oral contraceptives in January 2006, Family PACT

All Family PACT (N=84,389)
Only providers who can dispense YS (N=27,927)



Reference group is established white/non-Latina clients age 40 and older with 2 or more children

All differences significant at p<0.05 except between black and white women who visit providers who can dispense a year's supply.

Conclusions

Dispensing a year's supply is associated with a significant reduction in the odds of conceiving an unplanned pregnancy compared to dispensing just 1 or 3 packs. Dispensing a year's supply is associated with a 30% reduction in the odds of conceiving a pregnancy in the subsequent year and a 46% reduction in the odds of an abortion, controlling for age, race/ethnicity and previous pill use.

Possible explanations for the reduction in pregnancies:

- A selection effect whereby more compliant users are given a larger supply of oral contraceptives
- Differences in quality of care and subsequent contraceptive continuation between providers who can dispense on-site and those who cannot.
- Improved access and convenience results in higher continuation and fewer pregnancies among women given a year's supply.
- Having new packs on hand reduces the likelihood that a woman runs out of pills and becomes pregnant
- Being given a year's supply may enhance the expectation that the method is acceptable and safe and promotes continued use