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The Affordable Care Act and Abortion: An Update

Phoebe Steiner
psteine@g.clemson.edu

THE AFFORDABLE CARE ACT AND ABORTION: AN UPDATE

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Dr. Devon Gorry, Committee Chair
Dr. Scott Templeton
Mr. Reed Watson M.A., J.D.

ABSTRACT

The young adult provision of the Affordable Care Act (ACA) requires health insurance providers to offer dependent child coverage until the child of the enrollee[1] turns 26 years old. The purpose of this provision is to increase health care access to a historically underinsured group. Abramowitz (2017) investigates the effect of the ACA's young adult provision on the abortion rate. I will build on this foundation by including 2014-2018 data, extending the number of years examined. Using a difference-in-difference regression, I find the effect of the young adult provision on abortion rates to have a larger magnitude over an increased time period. The further decline in the abortion rates, from 2014 to 2018, is attributable to the effects of the young adult provision, not simply a return to the previous trend line.

[1]A person who is registered in and receives health care from a commercial or governmentally administered health plan.

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INTRODUCTION

In March 2010, President Obama signed the ACA into law. The young adult provision requires insurance plans to make dependent coverage eligible for extension "until the enrollees' adult child reaches the age of 26, even if the young adult no longer lives with his or her parents, is not a dependent on a parent's tax return, is no longer a student, or is married." (Young Adults and the Affordable Care Act) According to the Centers for Medicare and Medicaid Services, young adults have the highest rate of *uninsurance*. About 30% of young adults are uninsured, a higher percentage than any other age group. Before the ACA, plans could remove adult children from their parents' coverage when they turned 18, despite being a student or living at home.

Antwi et al. (2013) found a high uptake of parental coverage among adults aged 19-25, resulting in substantial reductions to the uninsurance rate among that age group. The impact of increased access to health insurance on the number of births is less clear. Increased access to insurance likely affects factors that could increase or decrease the birth rate. The ACA also required all insurance providers to make at least one form of birth control available at no cost to the woman. The expansion of coverage to prescription hormonal contraceptives[2] with the highest efficacy rate, ranging from 92% to 99.9% efficacy. (FDA) An increase in the use of contraceptives would lower the birth rate. It could also facilitate connection to resources or physicians that provide abortions.

[2] E.g., progestin intrauterine device (IUD), progestin implantable rod, progestin injections, estrogen and progestin combination oral contraceptive, progestin only oral contraceptive

The young adult provision extends coverage to individuals who may have otherwise been uninsured. Health insurance status dramatically lowers healthcare costs surrounding pregnancy and birth. While birthing costs vary widely depending on the state and hospital, the expenses incurred by uninsured mothers are nearly double compared with insured mothers. (Carlson, 2019) Having insurance may lessen the need to delay having children among this age group. For women with newborns covered by employer-provided commercial health insurance, the "average total charges for care with vaginal and cesarean births were $32,093 and $51,125, respectively. The average total commercial insurer payments were $18,329 and $27,866, respectively." (Corry, 2013) For those delaying childbearing due to cost, mitigating the financial burden associated with birth may increase childbearing.

This paper determines how healthcare coverage affects the abortion rate. Access to abortion has become a contentious subject in the last century. Some states have chosen to limit the accessibility to this type of reproductive health care.[3] If the desired effect of these policies is to reduce the number of abortions, evaluating factors that influence the abortion rate can provide other helpful insights for policymakers.

[3] In 2021, 74 bills were introduced in state legislatures to ban all or most abortions. These policies were enacted in 6 states (Arkansas, Idaho, North Carolina, Oklahoma, South Carolina, Texas). In all states except Texas, the laws are temporarily blocked pending litigation.

LITERATURE REVIEW

Most of the literature relevant to this paper falls into one of two types of analyses: how expanding access, through the young adult provision or other insurance expansions, influence the abortion rate (Abramowitz, Harvey et al., Jones and Jerman, Jones and Kooistra) or the number of births. (Culwell and Feinglass, Miller et al. 2013, Heim et al., Joyce and Grossman)

Abramowitz (2017) found that the young adult provision decreased the abortion rate for those who gained coverage from it. This foundational paper incorporated data on whether a woman gave birth or married in the past 12 months, from the American Community Survey(ACS), abortion rate by state, age group, and year, from the CDC Abortion Surveillance, and wantedness of pregnancy and contraceptive use and type, from the National Survey of Family Growth (NSFG). She separately considered the individual and state-level effects of being covered by parents' insurance. Her difference-in-difference model shows a decrease in abortion rates for the age group affected by the provision when compared to age groups generally not affected by the provision. She concludes that the "increase in insurance coverage is not leading to an increase in abortions, but rather a decrease in abortions" and so, "the decrease in fertility is not driven by an increase in abortions." Additionally, her individual-level-effect specification highlighted that for women who do not want to become pregnant, the young adult provision "may facilitate preventing births by lowering the out-of-pocket costs of contraception, and in some cases, abortion."

Alternatively, the young adult provision could have the opposite effect and

increase the number of abortions as the expansion of insurance may facilitate access to abortions. Although the Hyde Amendment prohibits using any federal funds to pay for abortion services unless the mother's life is in danger, rape, or incest, states may provide coverage out of their own Medicaid budget[4]. Sixteen states currently cover medically necessary abortion services for women enrolled in Medicaid, nine under court order and seven voluntarily, including Oregon. (Guttmacher Institute, 2021) In 2014, Oregon expanded Medicaid eligibility to anyone with income below 138% of the federal poverty level (FPL). This expansion was associated with an increase in Medicaid-financed medication (non-surgical) abortions. Those who qualify for Medicaid may have a different lived experience than the overall population as "women of reproductive age (15–44) with incomes below the federal poverty level were five times more likely to report an unintended pregnancy than women living at or above 200% of the federal poverty level." (Finer and Zolna, 2016) Jones and Jerman also note an inverse relationship between income and the abortion rate. They found that from 2008 to 2014, the abortion rate decreased for every age group, marital status, race/ethnicity, education, and family income level. Yet when compared to other income levels, women with incomes less than 100% of the federal poverty level had the highest rate of abortion, accounting for almost half of the abortion patients. (2017)

Increased access to health insurance could decrease abortion rates by either preventing unwanted pregnancy and the need for abortion or increasing wantedness of

[4] The Hyde Amendment has been a rider in every annual Labor-Health and Human Services appropriations bill since 1976.

pregnancy by decreasing the prenatal cost associated with it. Increased access to health insurance could increase the number of women who use prescription contraceptives. (Culwell and Feinglass 2007) This response could help explain why the probability of childbearing was almost double for uninsured adolescents compared to pre-pregnancy insured adolescents. (Miller et al. 2013) Heim et al. attribute a decrease in childbearing to the young adult provision. They used tax data from W-2 forms to find that the "young adult provision resulted in a modest decrease in childbearing." (2018) Alternatively, increased access to insurance could ease the financial pressure of uninsured prenatal care and increase the rate of young adult childbearing. (Joyce and Grossman, 1990) My intended contribution to this area of research is to extend Abramowitz's work by examining a longer time frame. It is plausible that gradual uptake delays the full effect of the young adult provision. It is also possible that the further decline from 2014-2018 is capturing the effect of other features of the ACA such as the birth control provision.

DATA

The data I use include abortion and population estimates. The CDC's Abortion Surveillance System[5] compiles state-level data reporting the number and characteristics of women obtaining abortions to produce national estimates. In order to maintain data collection consistency, *abortion* is defined as "an intervention performed by a licensed clinician[6] within the limits of state regulations that is intended to terminate a suspected or known ongoing intrauterine pregnancy, and that does not result in a live birth." I selected the set of abortion rates organized by year, age group, and state. I include the years 2006 through 2018. The CDC's Abortion Surveillance System and the Census Bureau data I use group individuals by age in increments of 5 years[7]. As the young adult provision impacts individuals aged 19 to 25, I am primarily interested in the treatment effect on the 20 to 24 age group. I am also interested in women slightly younger and slightly older than the treatment group. Therefore, my dataset contains the 15 to 19, 20 to 24, and 25 to 29 age groups.

A possible limitation of the Abortion Surveillance system is the lack of a national reporting requirement. Because states voluntarily report abortion data, some states did not report by age or report at all in some years. From 2006 to 2018, there are discrepancies in the states that report by age and meet the reporting standards. Therefore, I excluded California, DC, Delaware, Florida, Louisiana, Maine, Maryland, New Hampshire, Vermont, West Virginia, and Wyoming. When ranked by the number of births per state,

[5] Feature of the Division of Reproductive Health which provides the ongoing "systematic collection, analysis, and interpretation of outcome specific data" related to reproductive health.
[6] E.g., a physician, nurse-midwife, nurse practitioner, physician assistant
[7] less than 15 years, 15 to 19, 20 to 24, 25 to 29, 30 to 34, 35 to 49, and greater than 40 years.

DC, Delaware, Maine, New Hampshire, Vermont, West Virginia, and Wyoming fall into the bottom 25%. (Jatlaoui et al., Kortsmit et al., Pazol et al.)

Other papers (Abramowitz 2017; Jones and Jerman 2017) have used population data from the American Community Survey. Although this dataset is larger and includes additional variables, state-level data is not publicly available. Therefore, I obtained the population estimates from the United States Census Bureau. The State Intercensal Populations estimates are produced using a cohort-component method to measure the population for each year since the most recent decennial census. I used the Intercensal Estimates of the Resident Population by Sex and Age for States from April 1, 2000 to July 1, 2010 and April 1, 2010 to July 1, 2019. (United States Census Bureau, 2021) I filtered the population data for the female population estimates for the years, age groups, and states corresponding to the abortion data to calculate the weighted abortion rate. Table 1 contains the descriptive statistics for reported cases of abortion and population estimates.

After compiling the population and abortion data, I can calculate the annual state-age-group abortion rate. I calculated the annual state-age-group abortion rate by taking the number of abortions occurring in one state during one year for women in one age group and divided it by the number of women in the same age group in the same state during the same year. I exclude data for 2010 and 2011 to identify pre- and post-provision implementation periods that consider the dates of the enactment and implementation of the young adult provision and the time between conception and termination. Table 2 provides the pooled 2006- 2009 and 2012-2013 abortion data to

examine the trends during, before, and after the young adult provision. My results mirror the results found by Abramowitz. (2017)

Table 3 lays the foundation to expand upon her work by extending the number of years evaluated. I pooled the 2006-2009 and 2012-2018 abortion data to evaluate if the trend had continued with the additional 2014-2018 data. Again, I calculated the annual state-age-group abortion rate by taking the number of abortions in a state during one year for women in one age group and dividing by the number of women in the same age group in the same state during the same year, excluding data for 2010 and 2011. Table 3 highlights the population-weighted average for abortion rates by age group over the entire sample analysis period and before and after implementing the young adult provision.

Table 1: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Number of Abortions	1,557	3,565	5,037	41	39,040
Population Estimates	1,557	200,998	176,575	17,656	1,053,465

Table 2: Abortion Rates 2006-2009, 2012-2013

	Ages 15-19	Ages 20-24	Ages 25-29
Abortion rate 2006-2009, 2012-2013	12.1	26.9	20.7
	(2.8)	(3.5)	(1.8)
Abortion rate 2006-2009	13.9	29.1	21.8
	(0.8)	(1.0)	(0.8)
Abortion rate 2012-2013	8.7	22.6	18.5
	(0.7)	(1.1)	(0.5)

Table 3: Abortion Rates 2006-2009, 2012-2018

	Ages 15-19	Ages 20-24	Ages 25-29
Abortion rate 2006-2009, 2012-2018	9.5	23.5	19.4
	(3.6)	(4.7)	(2.0)
Abortion rate 2006-2009	13.9	29.1	21.8
	(0.8)	(1.0)	(0.8)
Abortion rate 2012-2018	7.1	20.3	18.1
	(1.3)	(1.9)	(0.5)

METHODOLOGY

I use a difference-in-difference model that compares the treatment group's annual state abortion rates to the control group's annual state abortion rates. The treatment group is the 20 to 24 age group, and the control groups are 15 to 19 and 25 to 29. Antwi et al. (2013), Heim et al. (2018), and Abramowitz (2017) use the same approach for this type of comparison. All individuals in the age group 19-25 years are affected by the young adult provision. In regressions 1.1, 1.3, 2.1, and 2.3, I include the age groups 15-19 and 25-29 in the control group as they are the comparison group directly above and below the 20 to 24 age group. In regressions 1.2, 1.4, 2.2, and 2.4, I only include those 25-29 in the control group. The age grouping of abortion data requires that 18, 19, and 25 years old, who are affected by the young adult mandate, are present in my control groups. Restricting the control group to the 25-29 age group includes fewer women affected but the young adult provision. However, the limitation is that this control group may share fewer underlying characteristics with the treatment group. For example, the 25-29 age group may have far more or fewer unintentional or unwanted pregnancies than the 15-19 age group. . 18- and 19-year-olds may be affected by the introduction of the young adult provision. 18-year-old individuals were already allowed to stay on their parent's insurance through the end of the tax year. Individuals both 18- and 19-years-old are often allowed to stay on their parent's insurance while they are students. The potential effect of including women aged 18, 19, and 25 in the treatment group would be a small positive bias on the interaction variable; therefore, the treatment effect may be an underestimate. The regression I used is of the following form:

$$Abortion\_Rate_{ajt}$$

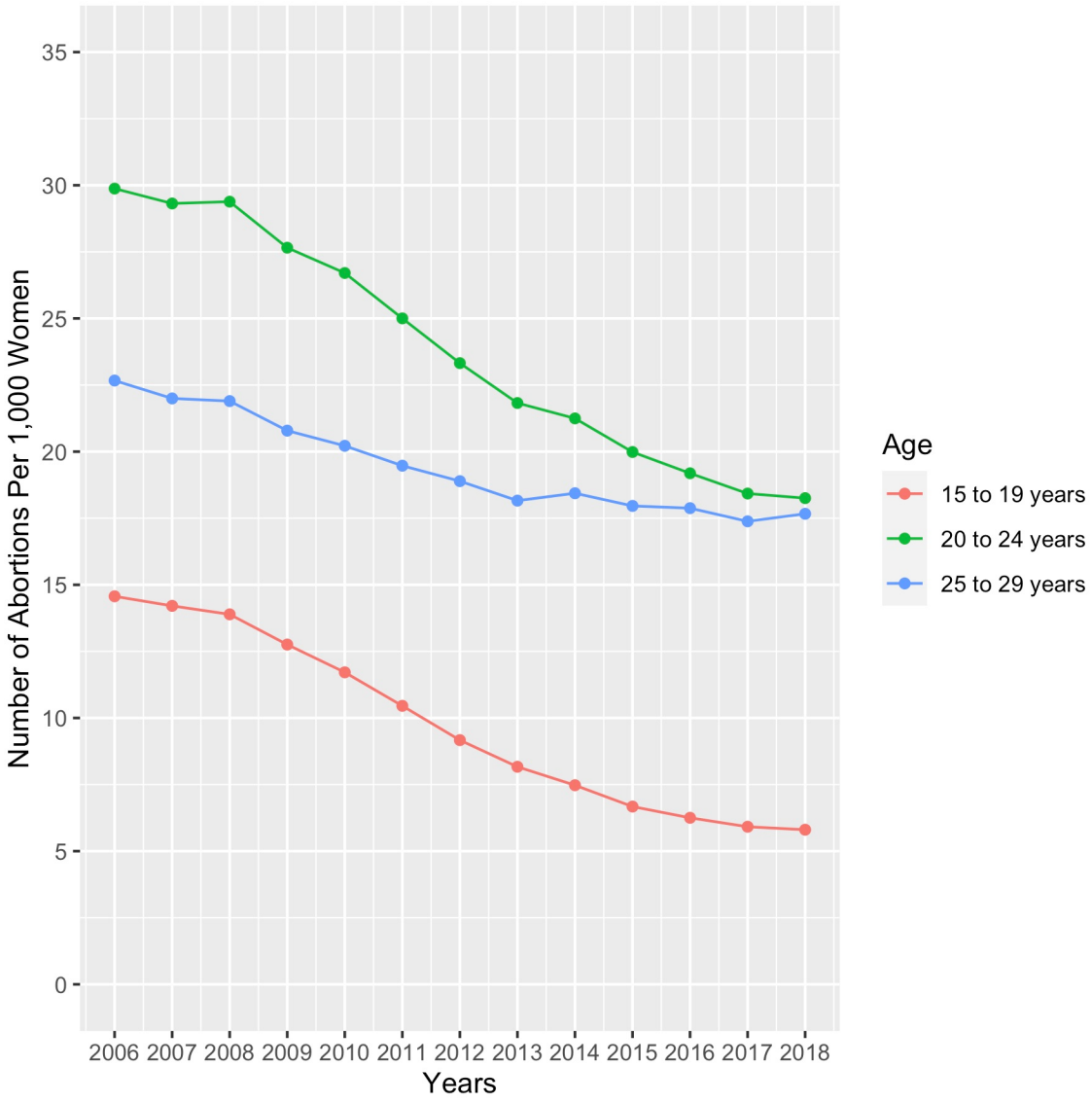
$$= \beta_0 + \beta_1 Time_{ajt} + \beta_2 (Treated_a * Time_{ajt}) + \beta_3 State_j + \beta_4 Year_t$$

$$+ \beta_5 Treated_a + \epsilon_{ajt}$$

The outcome variable is the abortion rate for age group a in state j during year t. The interaction term coefficient captures the change in abortion per 1,000 women for the treatment group during the implementation period. I included controls for state fixed effects, treatment age group fixed effects, and year fixed effects, respectively. There may be omitted variable bias as I cannot account for all the factors that may correlate with controls for state-year-age-group-level abortion rate with the available data. Some examples include median household income, the state unemployment rate, and the average number of children per household. Assuming women in the control group face similar trends in fertility and related outcomes as the treatment group, this approach accounts for time-varying factors that would have resulted in different rates of outcomes after the enactment and implementation of the provision for the treatment group.

RESULTS

Figure 1:



Regression 1: 2006-2009, 2012-2013

	Abortion Rate			
control group	15-29, 25-29	25-29	15-29, 25-29	15-29
pre-implementation period	2006-2009	2006-2009	2008-2009	2008-2009
	(1.1)	(1.2)	(1.3)	(1.4)
treated*time	-1.452***	-1.994***	-1.373***	-1.921***
	(0.392)	(0.358)	(0.446)	(0.374)
treated	13.112***	6.512***	13.121***	6.439***
	(0.299)	(0.253)	(0.384)	(0.305)
time	0.124	0.664	0.493	0.978**
	(0.400)	(0.408)	(0.404)	(0.382)
Years	-0.817***	-0.816***	-1.041***	-1.020***
	(0.083)	(0.080)	(0.104)	(0.092)
Observations	960	640	720	480
R^2	0.911	0.945	0.917	0.956

Notes:

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Regression 2: 2006-2009, 2012-2018

	Abortion Rate			
control group	15-29, 25-29	25-29	15-29, 25-29	15-29
pre-implementation period	2006-2009	2006-2009	2008-2009	2008-2009
	(2.1)	(2.2)	(2.3)	(2.4)
treated*time	-2.595***	-3.671***	-2.516***	-3.599***
	(0.361)	(0.344)	(0.443)	(0.403)
treated	13.585***	6.512***	13.641***	6.439***
	(0.315)	(0.286)	(0.413)	(0.364)
time	-0.430	0.523	-0.486	0.474
	(0.309)	(0.336)	(0.318)	(0.338)
Years	-0.586***	-0.566***	-0.589***	-0.566***
	(0.035)	(0.036)	(0.034)	(0.033)
Observations	1,557	1,038	1,317	878
R^2	0.884	0.918	0.886	0.925

Notes:

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Figure 1 displays the annual-age-group abortion rate from CDC abortion surveillance from 2006 to 2018. To calculate this rate, I use the entire population and number of abortions from a specific age group and year. The results again track with Abramowitz's finding that the trends in abortion rates were similar across age groups prior to the ACA but beginning in 2010 through 2013, 20- to 24-year-old women experienced a disproportionate decrease in abortion rates compared to younger and older women. The 2014 to 2018 data shows that around 2013, the decline flattens for the 25 to 29 age group around 18 per 1,000 women. Intriguingly, the decline in abortion rate continues through 2014-2018 for the 20-24 age group. The decline also continues for the 15-19 age group, which may be due to the overall decline in teen pregnancy rate.

The first regressions ran use the same years as Abramowitz's (2006-2009, 2012-2013) and has similar findings. The treatment effect estimations are proportionally smaller than her estimates as the data she had access to allow for more specific controls. I incorporated controls for the state, age, and year as previously discussed. The control group used in Regression 1.1 includes age groups 15-19 and 25-29. I find that the young adult provision accounts for a 1.452 abortion rate declined. This means that there were 1.452 fewer abortions per 1,000 women in the 20 to 24 age group than if the provision had not been enacted. Regression 1.2 estimates the effect of the young adult provision on abortion rates considering a control group of 25-29. Regression 1.2 finds the provision produced a 1.994 decrease in the abortion rate compared to the control group. Regression 1.3 finds the provision caused a 1.373 decline in the treatment group abortion rate

compared to a narrower pre-enactment period of 2008-2010. Regression 1.4 finds that when narrowing the pre-enactment period to 2008-2010 and only comparing to the control age group of 24-29, the treatment group experienced a 1.921 decrease in the abortion rate.

The second regressions represent my contribution and include data from 2014-2018 in the post-enactment period. Regression 2.1 includes all years in my sample and uses the age group above and below my treatment group of 20–24-year-olds as controls. The young adult provision is associated with a 2.595 decrease in the abortion rate for women ages 20-24. In other words, on average, there were 2.595 fewer abortions per 1,000 women in the 20 to 24 age group than if the provision had not gone into effect. This result has a significantly larger magnitude than the estimate in regression 1.1 of -1.452. Regression 2.2 uses only those aged 25-29 as the control group to capture the effect of the provision on the treatment group. Regression 2.2 reveals that the provision was associated with 3.671 fewer abortions per 1,000 women aged 20-24 compared to themselves in the pre-enactment period, all else constant, or those in the control group aged 25-29. There is a larger magnitude than the estimate in regression 1.2 of -1.994. Regression 2.3 captures the impact of the provision with the pre-enactment period restricted to 2008-2009. In this regression, the control group includes the age group above and below the treatment group. The results suggest that the impact of the young adult provision on those aged 20-24 was 2.516 fewer abortions per 1,000 compared to the control group or themselves in the pre-enactment period, all else constant. This result also has a large magnitude in comparison to the estimate in 1.3 of -1.373. Regression 2.4 uses

only those aged 25-29 as the control group to our treatment group age 20-24. It also only considers the pre-enactment datum starting in 2008 as regression 2.2 did. The results from regression 2.4 show that the provision is associated with a decrease of 3.599 per 1,000 women aged 20-24 compared to those 25-29 in that same period or compared to themselves in the pre-enactment period holding all else constant. This effect is also a larger decline than 1.921, the estimates from 1. The estimates in regression 2.1-2.4 are all statistically significant at the 99% level. The explanatory power, or R^2 value, of the models in regression 2 is similar to those in regression 1. These results suggest that the additional decline in abortion rate from 2014 to 2018 is attributable to the young adult provision and is not only tracking with the overarching trend of the decline in abortion rates over the past century.

CONCLUSION

My findings confirm Abramowitz's conclusion that the enactment of the young adult provision is associated with a decrease in the abortion rate. Furthermore, I found the impact of the young adult provision on the abortion rate to become larger over an extended time period. My research reveals that it may take longer than previously believed to see the full impact of increasing access on abortion rates. This is important as it indicates that other expansions of healthcare may have been pre-emptively ruled ineffective or not credited with a large enough effect. Further research should consider that they may not be capturing the full effects of the ACA without an extended timeline or more frequent updates as more data becomes available.

It is unclear, from the data alone, why the impact becomes larger over time. It may be the case that there is a natural lag time for young adults to see a provider and get access to contraceptives. It is also possible that the additional decline is capturing another force, possibly the individual mandate, which shifted the uninsurance rate for individuals in the 20-24 age group to a level comparable to the 25-29 age group.

The implication that simply increasing women's access to health insurance decreases abortion rates could be used to help inform policymakers. Further research needs to be done to investigate which types of insurance expansion are associated with decreases in the abortion rate, and which are the most effective. It is also possible that the most effective method to reduce abortion rates is further increasing access to any kind of health care. Additionally, research should explore if the decline in abortion rate is seen equally among all demographics and, if not, where deviations occur. Further research

could compare the abortion rate in Medicaid expansion states versus non-expansion states. For legislators motivated to reduce the demand for abortions, one policy solution may be to make the resources that health insurance offers more available.

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