A baby is always a blessing?
The effects of unintended childbearing on health throughout the life course

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INTRODUCTION

In 2001, one third of all births in the United States were unintended, resulting in 1.38 million children (Finer and Henshaw 2006). This large proportion of births has motivated a great deal of research examining the consequences of unintended births on the health and well-being of both mothers and children. Unintended childbearing generally portends negative consequences for the mother, child, and even siblings. While many studies examine the impact of unintended pregnancy on maternal health, postpartum behavior, and children's health outcomes (Gipson, Koenig, and Hindin 2008), few studies look at the impact that unintended childbearing in earlier life has on later stages of the life course.

While it is known that unplanned birth is a common occurrence in the lives of women and many studies find negative health consequences immediately following an unintended birth, less is known about the longer-term consequences of these births for women's health.. We intend to expand the understanding of this phenomenon by investigating whether unintended childbearing has negative health consequences for the mother that persists years after the birth. Additionally, we add to this literature by explicitly bringing the life course paradigm into the study of unintended childbearing. The life course framework suggests that the timing of an unintended birth in one's life could either strengthen or ameliorate the health effects of unintended childbearing. This suggests that there may not be a 'right time' to have an unintended birth, but that there are some times in life where a woman is better able to cope with an unintended birth. For example, an unintended first child born to a teenage mother may have

serious consequences for future health outcomes, but an older woman in a stable union who has an unplanned third child may be in a much better position to manage an additional child. Specifically we plan to look at whether women who had an unintended birth at any point in life prior to age 40 will have worse mental or physical health outcomes than women with no reported unintended births. We will also test whether the influence of an unintended birth on health differs by the age at the birth and what factors may mediate the relationship between unintended childbearing and later life health.

LITERATURE REVIEW

Definition of Unintended Birth

The ability to choose whether and when to have children is a crucial aspect of reproductive health. About half of all pregnancies in 2001 were unintended, and more than 40% of those ended in birth (Finer and Henshaw 2006). Unintended childbearing is a complex issue. It is easy to say that a pregnancy terminated by abortion was unwanted and a woman who became pregnant as a result of systematically not using contraception was wanted, but few pregnancies are at either of these extremes (Barber, Axinn, and Thornton 1999). Reviews of the literature have shown that there are variations in the ways pregnancy intention has been measured across studies. Most surveys differentiate between mistimed and unwanted pregnancies, but generally the two are combined to make one group - unintended pregnancy (Gipson, Koenig, and Hindin 2008). Women receive different, and often conflicting, messages from society about the right time to have a child. Circumstances can range from societal pressure to have a child, to coercive sexual intercourse, or to women who did not fully consider pregnancy as an outcome of unprotected sexual relations. Women, especially at young ages, may be limited in their choice of contraception or in their ability to get abortions (laws differ by state)

and thus sexual intercourse may result in an unintended birth (Barber, Axinn, and Thornton 1999).

Adding more complexity to the issue is how to properly measure an unintended birth. The measure of unintended pregnancy or birth will differ greatly based on the time when the question was asked – such as before the pregnancy or birth (prospective) or after (retrospective)? Wanting a child or pregnancy is a subjective question and can be influenced by circumstances such as the mother's mental health, relationship with the father, financial situation, and social support from friends and families. As these situations change over time, so might a woman's attitude towards her pregnancy or child. For example, parents can "want" a child prior to birth and then change their mind if the child's characteristics are different than expected (Rosenzweig and Wolpin 1993).

Consequences for Health

Unintended childbearing can have consequences for the health and well-being of mothers, children, and other family members. Research suggests that unwanted childbearing can lead to feelings of powerlessness which is associated with poor mental and physical health. Having a(n additional) child will increase time spent caring for children which may reduce mothers' overall physical health (Bird and Fremont 1991). Research from the National Survey of Families and Households gives evidence that mothers with unwanted births suffer from higher levels of depression and lower levels of happiness (Barber, Axinn, and Thornton 1999).

Childbearing is a major life event that can cause stress, and unwanted childbearing in particular can be associated with poor mental health because of the situation in which unintended childbearing occurs and the unwanted childbirth itself (Barber, Axinn, and Thornton 1999). An unplanned birth can be considered a negative life event, which may generate a feeling of loss of

control which is detrimental to mental health (Mirowsky and Ross 1986). Having a(n additional) child will increase time spent caring for children which may reduce mothers' overall physical health (Bird and Fremont 1991). Unintended childbearing may also contribute to marital conflict, lack of social support, economic hardship, and conflicting relationships with offspring – all of which are likely to negatively impact a woman's well-being. In addition, an unintended birth may occur in a family that already had several children, which may both put pressure on a mother and lead to additional (unanticipated) years of childrearing (Bird 1997).

Having an unintended birth may also prematurely end education and training for a young mother. This then leads to lower socioeconomic status which has been shown to affect both physical and mental health. Alternatively, lack of available child-care may force a mother to work fewer hours and may derail career trajectories. The effects of an interrupted education or departure from the labor force can have far-reaching consequences in the years beyond the birth of the child.

Studies have found negative associations between unintended children and child well-being but some studies demonstrate that background characteristics of the parents mediate this effect. Research suggests that parents of unintended children are more likely to neglect or abuse those children (Zuravin 1991). Pregnancies retrospectively classified as unwanted or mistimed are associated with worse measures of child well-being, including maternal reports of overall child health, child activity level, and child development (Hummer, Hack, and Raley 2004). Mothers with unwanted births have lower quality relationships with their children that persist into adulthood (Barber, Axinn, and Thornton 1999). Evidence from developing countries also indicates that unintended children are worse off in terms of receiving antenatal care, vaccination,

and child growth. However, first-born and second-born "unwanted" children in these contexts are less likely to have adverse affects than higher-parity children (Marston and Cleland 2003).

Life Course Timing of Births

The life course perspective is interested in a long-range view of the individual's life course and transitions and trajectories that occur over time.The life course paradigm also focuses on the individual life within a greater historical context. Another major principle is the idea of linked lives – interdependence of individuals (Elder Jr 1992; Elder Jr, Johnson, and Crosnoe 2003). The life course is an excellent framework for examining the relationship between unintended births and health in later life because this type of research connects earlier experiences to later life. In addition, research has shown that the impact of unintended births differs based on the socio-historical context. Furthermore, there are few relationships more deeply connected than that between mother and child.

Research has shown that individuals whose timing of first birth or completed fertility is out of sync with prevailing patterns of the day experience negative later life health outcomes (Spence and Eberstein 2009). We would expect that if a woman is at a critical development stage – such as the teen years or early adulthood – having an unplanned birth could halt educational attainment, career development, or even romantic relationships, therefore leading her to be out of sync with her peers, being detrimental above and beyond the challenges of unintended births mentioned earlier. Teens and young women may mourn the loss of roles associated with their age group. Having an unintended birth later on in the life course, however, would be easier to cope with because the role of mother is expected by society; a woman is more likely to have a relevant social network to support her and even to have experience from raising previous children. On the other, hand, however, the life course framework would propose that having an

unplanned or additional child at an older-than-normative age would also be challenging. Once such trajectories are thrown off course there may be no way to recover and there may be affects that persist across the life course. We anticipate that such life course trajectories will be evident in our analysis.

It is important however, to examine relevant characteristics that might keep an out-of-time unintended birth from being as detrimental as it could otherwise be. These would include factors such as education, social support from a spouse, and number of children. Alternatively, however, it is possible that the women who are more likely to have an unintended birth are also likely to have worse mental and physical health, and that it is not the birth that is a cause for poorer health, but rather other life circumstances. Future analysis will attempt to untangle the relationship between selection and causation.

The analysis presented here seeks to answer questions about the life course timing of unintended births. This paper compares women who had unintended births with all other women, but also examines a sub-sample of women who had unwanted or mistimed births in order to investigate the differential relationships between unintended births and health depending on the age at which the birth took place.

DATA

We use data from the 1979 National Longitudinal Survey of Youth (NLSY79) to assess the association between unintended births and health. The NLSY79 is an ongoing longitudinal panel survey of a national probability sample of 12,686 American civilian and military youth aged 14 to 21 years old in 1978 (Zagorsky & White, 1999). Respondents were surveyed annually until 1994, after which the survey was administered biennially. This survey, sponsored by the

Bureau of Labor Statistics (BLS), was designed principally to gather longitudinal information on the labor force experiences of young American men and women.

Due to funding constraints several subsamples were cut from the survey. In 2002 9,964 men and women were eligible for interview. Out of the 6,281 women interviewed in 1979, only about 4,945 were eligible for interview. Also, we restrict the following analysis to women who have had children to make sure we are not conflating the health effects of unintended births with parenthood in general. Because 639 women have not had births by 2002, there are 4,306 potential female mothers available for interview. We examine 3,102 women in models predicting mental health, or 72% of those eligible for interview; the self rated health models have less respondents - 67% of the available sample.

The NLSY79 is a particularly attractive to answer our research questions because it contains measures of life course occurrences of unintended births and various measures of health at older ages. Thus we can probe for the long term health effects of unintended fertility; specifically, we can examine the age effects of unintended childbearing and whether these effects are propagated throughout the life course. Importantly, the NLSY79 allows researchers to extract detailed information about the respondents' life circumstances both at the time of the unintended birth and in later life.

To tap our main independent variable of interest we define unintended births as those that were reported as either mistimed or unwanted at the time of pregnancy[1]. Women were coded as having an unwanted birth if they ever reported an unintended birth and the age at this birth

[1] For all waves prior to 1992, wantedness of births was asked either retrospectively or prospectively depending on if the respondent was pregnant at the time of survey or had already had the birth. In 1992 and after, this question was only asked retrospectively for live births.

was also recorded. Then age at this unintended birth was broken into groups to reflect salient life course periods, namely: teen years (from young teen to age 19); emerging adulthood (ages 20-24); young adulthood (ages 25-30); and adult (ages 31 and above).

The dependent variables of interest draw upon different and important dimensions of health; one physical (self-rated health) and one mental (CESD depressive symptoms scale). We use the health module that reports these health measures once either at or after the respondents 40th birthday (between 1998-2006 depending on the respondents age). The CESD used here is a nine item scale which measures the frequency of depressive symptoms in the past week (e.g. how often in the past week the respondent felt depressed, rarely or not at all, some of the time, occasionally, and most of the week). This was scored from 0 to 3 for each item and the scores for each item were added together. Higher scores indicate more depressive symptoms. The maximum level of possible symptoms was 27 and the minimum was 0. Self-rated health was assessed from responses to:"In general, would you say your health is excellent, very good, good, fair, or poor". We dictomized this measure into good (excellent, very good, and good) and poor (fair and poor) health because of the small cell sizes of those reporting poor self-rated health.

Other important variables may mediate the relationship between unintended births and health. First, unintended births may obstruct completion of education and this may be the pathway that leads to worse health at age 40 for those with an unintended birth. This would be expected to operate most strongly for young people still in the process of completing their education. This 'lost' education may never be regained and a vast literature demonstrates the powerful effects of education on health. We measure education at the time health was measured (measuring education at either the time of first birth or first unintended birth does little to change

the substantive results). We grouped education based on degree (less than high school, high school diploma, some college, and college degree and above).

Additionally, marital status is measured at the interview before the unintended birth. There are three categories of marital status: married, never married, and divorced/separated/widowed. Controlling for marital status may help capture the social support that comes from a husband or other family members, thus helping a mother cope with an unexpected child.

Race, as measured in 1979 by interviewer remarks, is also controlled for. Here race is defined as Black, White, and Other. Completed parity (total number of children at the time of health measure) was included to control for the potential effects of unintended childbearing and health being confounded with the potentially stressful effects of having another child to care for regardless of the intentions surrounding the birth.

Analysis Strategy

The following analysis begins by examining examining the relationship between unintended childbearing and health by comparing the various ages at first unintended birth to all women who have not had an unintended child. These analyses include all women who have had at least one birth. Because depressive symptoms are a continuous measure, OLS regression is used to predict depressive symptoms. To assess physical health, logistic regression is used to predict good self-rated health.

The next component of the analysis restricts the sample to only women who have had an unintended birth. This allows for the comparison of women who had an unintended birth at

different ages to women who had an unintended birth at the normative ages for childbearing (25-30). Parallel analyses as those used for the whole sample are used on the sub-sample.

In all of the models stepwise regression is used to assess how much the relationships between unintended childbearing and health are mediated by the inclusion of variables of interest (i.e. race, educational attainment near age 40, completed parity, and marital status at first birth).

RESULTS

Table 1 reports descriptive statistics. More than half of women that ever had a birth have had an unintended birth in this sample. Of those with an unintended birth, 40% are teens, 14% are ages 20-24, 21% are ages 25-30, and about 13% are 31 and older. The data show that women who had an unintended birth in their teens have the highest number of depressive symptoms and are the least likely to be in good health. Women who had an unintended birth during their early 20s have similar health as those that had births in their teens. Those who had unintended births in their late 20s have the best mental health but have worse physical health than both women who had unintended births in their 30s or those that never had an unintended birth. Not surprisingly, women who never had an unintended birth have the fewest depressive symptoms and the best physical health. More than 50% of teen unintended births were to Black mothers, whereas Blacks make up only 31% of the full sample. 60% of women with no unintended births are white women, but whites make up less than half of the total sample. Nearly 23% of unintended births in the more normative age group (25-30) were to Hispanic Mothers. More than one fourth of the women with no unintended births have a college degree or higher, but educational attainment is limited for women with unintended births - only 11.2% received college degrees by age 40. We see that total number of children ever born is higher for women with unplanned births compared

with others (2.82 vs. 2.21 children). 61% of women in the sample are married at the time of first birth, but this figure is considerably lower for women with unintended births – less than 30% of unintended teen moms are married.

---Table 1 about here---

Table 2 predicts depressive symptoms for women near age 40. The baseline model indicates that, compared to women who had no unintended births, those who had unintended births as teens, in their early 20's, and in their 30's, had 1.74, 1.49, and 0.87 more depressive symptoms, respectively. Importantly, women who had unintended births between the ages 25-30 had no more depressive symptoms than women who did not have an unintended birth. This is consistent with the argument that an unintended birth that is 'on time' would not be as disruptive as an unintended birth that is 'off time.' In other words, even unexpected events are not harmful if they occur at a normative point in the life course.

In the second model, after controlling for race, the effect of an unintended birth in the 30's no longer influences depressive symptoms, and the effect of teen and early adulthood unintended births is somewhat attenuated. Model 3 shows that women who had an unintended birth as a teenager still have more depressive symptoms than those women with no reported unintended births even after controlling for education (at time of health measure). Notably, the effect of unintended births for teens is sharply attenuated by controlling for educational attainment, i.e. 35 percent of the effect of an unintended birth is explained by educational attainment. This is consistent with the argument that having an early unintended birth curtails educational attainment and disrupts the normative life course that is shaped first by education and then by becoming a mother. However, alternate theories posit that teen mothers are a select group that did not have educational/career opportunities and therefore these women would have

not achieved high education with or without a birth. Nevertheless, a child is very time consuming and childcare often competes with schooling. In these models, however, the negative effects of an unintended birth are not fully explained by educational attainment.

Nearly 19% of the effect of an unintended birth for those 20-25 is explained by holding educational attainment constant. Again, education is an important part of the life course for women in this age group. These ages are usually reserved for post-secondary educational attainment, but an unintended birth may cause education to be postponed indefinitely. The same arguments about teen mothers apply to this age group.

It is only in Model 5when we control for marital status at the time of first birth that the effects of unintended births on depressive symptoms are no longer significant for teens. Teen mothers are generally not in a supportive marital relationship at the time of birth (see table 1) but if they were to receive support from a partner they might have fewer depressive symptoms. For women who had an unintended birth at ages 20-24, marital status only partially mediates the effect of an unintended birth on subsequent mental health. Although over 23% of these effects are explained by including marital status at the time of birth, women who have unintended births in their early 20's have .82 more depressive symptoms than women who never have an unintended birth.

---Table 2 about here---

We also explore the effects of an unintended birth on a physical dimension of health, namely self-rated health. Table 3 shows the odds of having good self-rated health near age 40 as compared to poor self-rated health for all women in the sample. We find that women who had unintended births as teenagers or in their early or late 20's are less likely to report good self-rated health (OR=0.52, OR=.54, and OR=.7 respectively) than women who never had an unintended

birth. In the second model, the effects persist for the younger women but for women with unintended births in their late 20's, the coefficient is no longer significant after we control for race. For the youngest ages at unintended childbearing, education plays a major role. After controlling for education, unintended teen childbearing no longer has a significant influence on reporting good self-rated health in later life. As discussed previously, having an early unintended birth may inhibit these women's opportunities for higher education. The results differ for women who bear an unintended child in their early 20's. Even after controlling for race, education, completed parity, and marital status, these women still have lower odds of reporting good self-rated health than women with no unintended births, though both the significance and magnitude has been reduced (from OR=0.54 at baseline to OR=0.71 in final model).

---Table 3 about here---

The previous analysis explores the age effects of unintended births compared to women who had no unintended births. The following analyses look at comparisons between women who had unintended births at various ages. Therefore, the analysis is limited only to women who have had an unintended birth (N=1,543). For these analyses the comparison group is women whose unintended birth took place in their late 20's. This age group was chosen because it is the most normative time to have any children for women. Therefore, these women should have better health outcomes after unintended childbearing.

Some similar patterns to the previous analysis looking at depressive symptoms are found. In the baseline model individuals who had unintended births as teens are likely to have more depressive symptoms, as are women with births in their early 20's, as compared to women in their late 20's. The magnitude of the coefficient, however, is lower than in table 2. As additional controls are added to the models the size and magnitude of the coefficients for teen and early

20's unintended births decreases. Once education is controlled for, women who had unintended births in their early 20's are actually worse off than teens in terms of mental health. A high school diploma or more education lowers the number of depressive symptoms, with college education having the largest effect. In the final model, controlling for marital status makes the coefficient for teen unintended births no longer significant. Women who were unmarried or divorced at that time are likely to experience more depressive symptoms near age 40. As was found in the previous analysis, women who were 20-24 have more depressive symptoms that those who experience an unintended birth at the normative ages for births (25-30). This effect is attenuated (by nearly 15%) but is never explained.

---Table 4 about here---

The final analysis (table 5) predicts good self-rated health only among women who ever experienced an unintended birth. In contrast with table 3 there is no significant difference between age of unintended birth and self-rated health near age 40. This means that the findings from our earlier analysis were primarily capturing differences between those who had unintended births and those who did not, rather than differences between age at first unintended birth among all women with an unintended birth. The coefficients for the control variables have similar levels for significance and direction between the full sample and the restricted sample, factors such as more years of education and social support from marriage contribute to good self-rated health across all the women.

---Table 5 about here---

DISCUSSION

Our results show that women with unintended births are likely to have worse mental and physical health than women with no unintended births. When looking only at women who had unintended births, there are differences by age of unintended birth in predicting depressive symptoms, but no difference across age groups in terms of predicting good self-rated health in later life.

In the full model we find that being married at the time of birth protects teen mothers from the detrimental effects of an unintended birth on later-life depression. In keeping with the literature, greater social support can buffer against stressful life events (Thoits 1995). For women who had unintended children in early adulthood, controlling for marital status does not explain the relationship between unintended childbearing and depressive symptoms. It may be that at this crucial stage in the life course, having an unplanned or mistimed child can have negative consequences for mental health down the road above and beyond the buffering effects of social support from a partner. When looking at the sub-sample of women who had unintended births, similar patterns are found. In these analyses, however, the comparison group is women with unintended births in their late 20's. Differences by age group give some indication that it is the age at which the unintended birth takes place that is truly important. The results also provide evidence that women who give birth during this more normative period do not suffer the same negative consequences for mental health as do younger mothers.

Our analyses presented here beg the question, why does the effect of unintended childbearing persist for 20-24-year-olds? We believe the answer is that these ages may be particularly vulnerable time for youth. These women may be seeking higher education, but a birth may lower their grades or ability to participate in education. Education does not explain the effects of unintended births for these women but we have no measure of how well these women

did in the educational institution. Additionally, this age may be the time when careers are demanding and unstable and thus a birth may lower these women's ability to develop a stable career.. Human capital development could be lowered or curtailed due to the time demands of a child. Another explanation of these persistent effects is that in the early 20's women may have not had the opportunities to meet stable, helpful and supportive spouses. Social support may be very important for successfully dealing with the stress of an unintended child and these women may be lacking that support from a spouse or from family members. While teens may look to their own parents for help caring for a child, young adults may not receive the same social support from parents or others in childrearing. Since they are technically adults, family and friends might expect these young women to be able to take care of a child on their own.

This analysis shows that having an unintended birth has fewer consequences for health if the birth occurs at a normative age (i.e. the late 20's). These women may be more ready for an unintended birth. Women in their late 20's are likely to have completed their education, have begun a career, and have the social support of a husband or peers who are also raising children. Normative sequencing makes even unexpected events less stressful.

In our models predicting self-rated health near age 40 we find that education plays a major role for teen moms. Having an early unintended births may constrain these women's opportunities for higher education and have consequences for overall health in later life. Again we find that women who have unintended births in their early 20's are likely to have worse self-rated health later on. We also find interesting information regarding older mothers. One potential reason that the oldest age group (31+) does not have worse self-rated health as a result of unintended childbearing is that the ability to have children may show evidence of good health (Doblhammer and Oeppen 2003). One of our major findings regarding physical health is that

differences in self-rated health primarily exist between women who had unintended births and those who did not, rather than differences by age. Having an unintended birth does influence physical health in later life, but the negative association may be uniform across all women who had unintended births, rather than differences by life course timing. The age and timing effects primarily operate through mental health.

This analysis shows that life course arguments are quite potent. Timing and sequencing of events can be very important for health outcomes. Thus, we add to the literature by examining life course hypotheses about the consequences of unwanted and mistimed childbearing.

However, we cannot be sure that selection is not operating to create these associations. Women who have unintended births may be a select group and may have had poor health if they had an unintended birth or not. To account for this, we plan to compare young women who had an unintended birth at younger ages to peers who had a pregnancy but miscarried. This provides a natural experiment by matching those who had a birth to similar peers who had a miscarriage. This analysis will give more leverage to understand how unintended births are causally linked to health outcomes.

An additional limitation of this research is that we only have information on mental and physical health at a single time point – namely age 40. We cannot account for the fact that women who are depressed or in poorer physical health at first birth or at first unintended birth are also likely to be in poorer health in later ages. In addition, our measure of unintended birth was only asked at one time point (retrospective for some respondents and prospective for others) and we cannot ascertain whether attitudes towards wantedness shifted over time and circumstance.

In this analysis we do not make arguments that we have successfully causally linked unintended childbearing to health outcomes. We only make speculations and add to the literature that timing matters for women. This type of analysis is provocative because it shows that those with an unintended birth at younger ages have poorer health many years after the birth. A birth is not a single stressful event but it may set off a chain of events that disrupt the life course in a myriad of ways.

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TABLES

Table 1: Descriptive Statistics

	Teens	20-24	25-30	31+	No Unintended	Restricted Sample (Unintended Births)	Full Sample
Health							
Depressive Symptoms	6.00	5.85	4.54	5.16	4.20	5.55	4.89
	(6.40)	(6.20)	(5.31)	(5.61)	(5.44)	(6.06)	(5.80)
Good Self-Rated Health	80.0%	80.6%	84.0%	88.2%	88.5%	82.0%	85.2%
Race							
Hispanic	16.3%	18.9%	22.8%	16.6%	21.8%	18.4%	20.1%
Black	53.6%	40.4%	31.9%	33.2%	18.4%	43.0%	31.0%
White	30.1%	40.7%	45.3%	50.3%	59.8%	38.6%	48.9%
Educational Attainment							
Less than High School	17.0%	9.6%	10.4%	11.8%	8.2%	13.0%	10.7%
High School	53.9%	48.0%	46.3%	33.2%	38.8%	48.1%	43.6%
Some College	24.7%	30.6%	29.0%	28.3%	26.9%	27.6%	27.3%
College and Above	4.4%	11.9%	14.3%	26.7%	26.0%	11.2%	18.5%
Completed Parity	2.92	2.72	2.82	2.73	2.21	2.82	2.52
	(1.34)	(1.33)	(1.38)	(1.36)	(0.94)	(1.35)	(1.21)
Marital Status at Birth							

Never Married	64.7%	46.2%	30.9%	28.3%	15.3%	48.2%	32.1%
Married	27.6%	47.2%	59.3%	59.9%	79.3%	43.4%	61.0%
Divorced/Sep/Widow	7.7%	6.6%	9.8%	11.8%	5.4%	8.4%	6.9%
Observations	595	396	307	187	1419	1485	2904
Percent	20.5%	13.6%	10.6%	6.4%	48.9%	51.1%	100.0%

Note: Education measured at time of health measure (age 40); marital status measured at time of 1st birth

Table 2: Predicting Depressive Symptoms by Unintended Births across Age Groups: All Women

	I: Base	2: Race	3: Education	4: Parity	5: Marital
Age at 1st Unintended Birth[1]					
Teen	1.74***	1.51***	0.98***	0.95**	0.58
	(0.27)	(0.29)	(0.29)	(0.29)	(0.31)
20-24	1.49***	1.34***	1.09***	1.07***	0.82*
	(0.31)	(0.32)	(0.32)	(0.32)	(0.32)
25-30	0.33	0.24	0.06	0.04	-0.13
	(0.35)	(0.35)	(0.35)	(0.35)	(0.35)
31+	0.87*	0.77	0.72	0.7	0.52
	(0.43)	(0.43)	(0.43)	(0.43)	(0.43)
Race[2]					
Hispanic		-0.08	-0.55*	-0.56*	-0.68*
		(0.27)	(0.28)	(0.28)	(0.28)
Black		0.64**	0.53*	0.52*	0.09
		(0.25)	(0.25)	(0.25)	(0.27)
Educational Attainment[3]					
High School			-1.93***	-1.91***	-1.77***
			(0.35)	(0.36)	(0.36)
Some College			-2.62***	-2.59***	-2.38***
			(0.37)	(0.38)	(0.38)
College and above			-3.63***	-3.60***	-3.29***
			(0.41)	(0.41)	(0.42)
Completed Parity				0.04	0.06
				(0.09)	(0.09)
Marital Status at Birth[4]					
Never Married					1.06***
					(0.28)
Divorced/Sep/Widow					1.46***
					(0.41)
Constant	4.22***	4.12***	6.65***	6.54***	6.17***
	(0.15)	(0.17)	(0.37)	(0.44)	(0.45)
Observations	3102	3102	3102	3102	3102

Note: Education measured at time of health measure (age 40); marital status measured at time of 1st birth

[1]:The reference group is women who have not had an unintended birth

[2]:The reference group is white.

[3]:The reference group is completed less than high school.

[4]:The reference group is married.

* p<0.05, ** p<0.01, *** p<0.001

Table 3: Predicting Good Self Rated Health by Unintended Births across Age Groups: All Women

	I: Base	2: Race	3: Education	4: Parity	5: Marital
Age at 1st Unintended Birth[1]					
Teen	0.52***	0.62***	0.84	0.83	0.92
	(0.07)	(0.09)	(0.12)	(0.12)	(0.14)
20-24	0.54***	0.60***	0.67*	0.66*	0.71*
	(0.08)	(0.09)	(0.11)	(0.11)	(0.12)
25-30	0.70*	0.76	0.86	0.85	0.89
	(0.12)	(0.14)	(0.16)	(0.16)	(0.17)
31+	0.97	1.03	1.08	1.07	1.13
	(0.24)	(0.25)	(0.27)	(0.27)	(0.29)
Race[2]					
Hispanic		0.55***	0.71*	0.70*	0.72*
		(0.08)	(0.10)	(0.10)	(0.11)
Black		0.55***	0.55***	0.55***	0.63**
		(0.07)	(0.07)	(0.07)	(0.09)
Educational Attainment[3]					
High School			2.10***	2.13***	2.04***
			(0.31)	(0.32)	(0.31)
Some College			4.27***	4.34***	4.08***
			(0.74)	(0.77)	(0.73)
College and above			8.40***	8.53***	7.71***
			(2.09)	(2.15)	(1.96)
Completed Parity				1.02	1.01
				(0.04)	(0.04)
Marital Status at Birth[4]					
Never Married					0.72*
					(0.10)
Divorced/Sep/Widow					0.60**
					(0.12)
Constant	7.71***	10.14***	3.28***	3.11***	3.54***
	(0.64)	(1.04)	(0.54)	(0.63)	(0.73)
Observations	2906	2906	2906	2906	2906

Note: Education measured at time of health measure (age 40); marital status measured at time of 1st birth

[1]:The reference group is women who have not had an unintended birth

[2]:The reference group is white.

[3]:The reference group is completed less than high school.

[4]:The reference group is married.

* p<0.05, ** p<0.01, *** p<0.001

Table 4: Predicting Depressive Symptoms by Unintended Births across Age Groups: Only those with an Unintended Birth

	I: Base	2: Race	3: Education	4: Parity	5: Marital
Age at 1st Unintended Birth[1]					
Teen	1.39***	1.31**	0.98*	0.97*	0.76
	(0.42)	(0.42)	(0.42)	(0.42)	(0.44)
20-24	1.21**	1.17**	1.10*	1.11*	1.03*
	(0.45)	(0.45)	(0.44)	(0.44)	(0.45)
31+	0.78	0.75	0.85	0.86	0.77
	(0.55)	(0.55)	(0.55)	(0.55)	(0.55)
Race[2]					
Hispanic		-0.54	-0.99*	-1.02*	-1.13*
		(0.43)	(0.44)	(0.44)	(0.44)
Black		0.23	0.12	0.11	-0.28
		(0.35)	(0.34)	(0.34)	(0.38)
Educational Attainment[3]					
High School			-2.10***	-2.02***	-1.92***
			(0.49)	(0.49)	(0.49)
Some College			-2.73***	-2.64***	-2.49***
			(0.52)	(0.53)	(0.53)
College and above			-3.49***	-3.40***	-3.17***
			(0.64)	(0.65)	(0.65)
Completed Parity				0.11	0.14
				(0.12)	(0.12)
Marital Status at Birth[4]					
Never Married					0.95*
					(0.38)
Divorced/Sep/Widow					1.09*
					(0.52)
Constant	4.53***	4.58***	7.01***	6.63***	6.19***
	(0.34)	(0.38)	(0.58)	(0.70)	(0.72)
Observations	1543	1543	1543	1543	1543

Note: Education measured at time of health measures (age 40); marriage measured at time of 1st unintended birth

[1]:The reference group is women who had an unintended birth between the ages 25-30.

[2]:The reference group is white.

[3]:The reference group is completed less than high school.

[4]:The reference group is married.

* p<0.05, ** p<0.01, *** p<0.001

Table 5: Predicting Good Self Rated Health by Unintended Births across Age Groups: Only those with Unintended Births

	I: Base	2: Race	3: Education	4: Parity	5: Marital
Age at 1st Unintended Birth[1]					
Teen	0.72	0.77	0.96	0.96	1.09
	(0.14)	(0.15)	(0.19)	(0.19)	(0.23)
20-24	0.78	0.79	0.79	0.79	0.83
	(0.16)	(0.16)	(0.17)	(0.17)	(0.18)
31+	1.31	1.27	1.18	1.18	1.28
	(0.36)	(0.36)	(0.34)	(0.34)	(0.38)
Race[2]					
Hispanic		0.63*	0.83	0.84	0.88
		(0.13)	(0.17)	(0.18)	(0.19)
Black		0.63**	0.63**	0.64**	0.81
		(0.10)	(0.10)	(0.11)	(0.15)
Educational Attainment[3]					
High School			2.51***	2.45***	2.31***
			(0.46)	(0.46)	(0.44)
Some College			5.14***	4.99***	4.59***
			(1.16)	(1.15)	(1.06)
College and above			11.21***	10.85***	9.37***
			(4.50)	(4.38)	(3.80)
Completed Parity				0.96	0.95
				(0.05)	(0.05)
Marital Status at Birth[4]					
Never Married					0.52***
					(0.10)
Divorced/Sep/Widow					0.45***
					(0.11)
Constant	5.52***	7.24***	2.24**	2.53**	3.50***
	(0.88)	(1.35)	(0.56)	(0.76)	(1.10)
Observations	1452	1452	1452	1452	1452

Note: Education measured at time of health measures (age 40); marriage measured at time of 1st unintended birth

[1]:The reference group is women who had an unintended birth between the ages 25-30.

[2]:The reference group is white.

[3]:The reference group is completed less than high school.

[4]:The reference group is married.

* p<0.05, ** p<0.01, *** p<0.001