

BIRTHING OPTIONS AND LIFE CHANCES:  
HOW DO LIFE CHANCES SHAPE WOMEN'S ATTITUDES TOWARDS  
DIFFERENT BIRTHING OPTIONS?

by

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## ABSTRACT

Childbirth options for American women have followed at least two very distinct transitions over the past century. In the first transition, the field of obstetrics emerged within the medical profession to gain prestige and discredit former forms of childbirth practices such as natural delivery, home births, and midwifery. After this transition, women had few choices regarding childbirth other than medicalized options. Today, a second transition is evident—some women are seeking more natural and traditional alternatives rather than the stark strictly medical interventions of pregnancy and childbirth. Using survey data from a convenience sample of 113 women ages 18 or older, the present study examined women's birthing decisions. More specifically, I explored how women choose medical or alternative options. I framed the study with Cockerham's theory of health lifestyles, which argues that life chances (i.e., structural variables) impact life choices, including the ways women make decisions regarding childbirth. Cross-tabulations and chi square tests, revealed two statistically significant relationships between life chances and preferences for childbirth. First, women who perceived their diets as healthy were more likely to favor alternative options over medical options. In addition, women in non-southern regions of the U.S. were more likely to favor alternative birthing options. However, upon further analysis, regardless of healthy or non-healthy diets, women in southern regions of the U.S. favored medical birthing options over alternative options. Both of these associations could be explained by additional variables such as lack of resources, knowledge, and traditional belief systems..

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## INTRODUCTION

Over the past century within the United States, the ideas and definitions surrounding health and childbirth have changed dramatically (Conrad 2005; Conrad 2007; Fox & Worts 1999; Moore 2011; Parry 2008; Thomasson & Treber 2008). Historically, childbirth was viewed as a natural process, but has become medicalized over the past 150 years. Childbirth has transformed from “a natural, normal, woman-centered event” (Parry 2008:785) to one defined as illness in need of a medical treatment (Conrad 2005). However, in recent decades some women have begun to seek out alternatives to medicalized childbirth, including midwifery, doulas, home births, free standing birthing centers, among other options (Bergeron 2007; Block 2007; Crossley 2007; Fox & Worts 1999; Johnson 2008; Moore 2011; Parry 2008; Weitz & Sullivan 1986). A considerable body of research in multiple health disciplines treats health practices as isolated choices among atomistic individuals, but health lifestyles theory (Cockerham 2005) emphasizes the ways that health choices such as childbirth are either constrained or enabled by broader social conditions. While some Americans have embraced alternative health options, many are still committed to the biomedical model and other modernist ideas of disease, especially when it comes to childbirth.

Women's attitudes towards childbirth have been studied in great depth over the past several decades, particularly the shift towards alternative methods over medical methods (Bergeron 2007; Block 2007; Crossley 2007; Fox & Worts 1999; Johnson 2008; Moore 2011; Parry 2008; Weitz & Sullivan 1986); yet, how life chances and health practices influence women's decision have not been closely examined. Life chances,

defined as the opportunities or lack of opportunities to access the necessary resources for the “good life,” along with the ways individuals form different habits that influence their health (health practices), impact the way they form various opinions and attitudes on many different topics. Also, health lifestyles theory is fairly new and has not been linked to different areas of health behavior, such as childbirth options. Johnson (2008), Parry (2008), and Weitz and Sullivan (1986) all have suggested that various dimensions of life chances and health practices have a tremendous influence on how individuals shape their opinions on medical and natural techniques of birthing.

This investigation is sociologically important as it will provide further research into the ways that child birthing dispositions originate within a health lifestyles framework. More specifically, this study seeks to examine the ways that life chances (age, race/ethnicity, geographical location, education, marital status) influence women’s attitudes towards various childbirth techniques.

In the pages that follow, I will first provide an overview of childbirth in America within the past 100 years. Next, I will provide a summary of health lifestyle theory, with special attention to the ways that the interplay of chances and choices generates dispositions towards alternative and medical birthing options. I will then discuss several structural variables that influence birthing practices, before introducing the methodology used in this study. Finally, I will discuss the data, its analysis, and the study’s overall conclusions.

## **A BRIEF HISTORY OF CHILDBIRTH IN AMERICA**

Early American medicine was significantly less developed than in Europe during the same time period (Conrad & Schneider 2013). Medical schools, physicians, and the medical practice in the modern sense did not exist. Instead, there existed rich, pluralistic, and diverse sets of ideologies addressing health and disease (Kaptchuk & Eisenberg 2001), with no singular group able to claim legitimacy in health matters, including childbirth. Most early American physicians only “practiced” medicine part-time, also working as clergy, educators, farmers, or other occupations. Physicians did not even commonly attend childbirth at this time; rather, midwives routinely attended and supervised births.

During the nineteenth and twentieth centuries, through events like the establishment of the American Medical Association (1847) and the completion of the Flexner Report (1911), medicine was transforming into an established profession while medical science and the principles underlying what would become the biomedical model were accelerating. In general terms, the young medical profession began to assert authority over a greater and greater share of human conditions, and of society. In the process, it systematically discredited other types of healing and ways of thinking about health and disease. In more specific terms, however, obstetricians aggressively took control of childbirth from other types of practitioners that had been overseeing births for many years. This completed the first transition in the definition of childbirth and the ideology surrounding it. A complete history of childbirth is too lengthy and is not necessary for this study (see Barker 1998; Brodsky 2008), but the end result was that

obstetricians in the twentieth century administered childbirth within the strict boundaries of the biomedical model, to the exclusion of most other practitioners (Hinote & Wasserman 2012).

Conrad (2005) frames the process of medicalization as the process through which powerful actors and social groups define a problem in medical terms as an illness or disorder, and use a medical intervention to treat it. This approach is the first transition in childbirth and best describes the shift from more traditional child birthing practices, midwives, and home care to physicians, hospitals, and other medical interventions. In these ways, professional medicine successfully infiltrated many areas of people's lives that were typically considered personal or private, including childbirth (Fox & Worts 1999; Moore 2011; Thomasson & Treber 2008). Medicalization allowed physicians to accumulate power and prestige to pave the way for the twentieth-century golden age of doctoring and transformed people's ideas about what is "natural" and "normal" in childbirth. Parry (2008) states that childbirth was "once considered a natural, normal, woman-centered event" (p. 785). Childbirth is now deemed an experience in which a woman goes to a physician for "treatment" of her pregnancy and then goes to the hospital for the "cure", the birth of the child (Conrad 2007; Moore 2011). Second wave standpoint feminists see this form of childbirth taking the power from women concerning their pregnancies and their bodies, and allowing physicians to dominate the birthing experience (Bergeron 2007; Crossley 2007; Johnson 2008; Moore 2011; Parry 2008; Weitz & Sullivan 1986; Westfall & Benoit 2004).

On the other hand, Block (2007) and Wagner (2006), describe how obstetricians have ignored government mandates to reduce rates of cesarean sections over the past

twenty years and have increased the rates by offering optional cesarean sections for the convenience of mothers, families, and themselves. Many Americans do not question the biomedical model, but some women are rethinking the expert medical advice and looking into the benefits and consequences of medicalized childbirth. Consequently, alternative childbirth rates have increased over the past twenty years, such as midwifery, home births, the use of doulas, freestanding birthing centers (Block 2007; Johnson 2008; Parry 2008; Weitz & Sullivan 1986). Also, women have started to assert their right to use obstetricians but abstaining from using intervening medical practices such as monitors, use of forceps or vacuums, prenatal screening, and non-emergency cesarean sections (Armstrong 2000; Block 2007; Johnson 2008; Moore 2011; Parry 2008; Wagner 2006; Weitz & Sullivan 1986; Westfall & Benoit 2004). This is the second transition in childbirth, which is from medicalized to natural. While many Americans are still in favor of medicalized childbirth practices, more young, educated, affluent, and liberal cohorts have started questioning the methods used (Craven 2007; Overgaard, Fenger-Gron, & Sandall 2012). Although changes in women's attitudes and practices regarding childbirth are evident, little is known about how women develop these attitudes.

### **TRENDS IN CHILDBIRTH OVER THE PAST 100 YEARS**

Over the past century, the demographics of child birthing have shifted alongside the ideas and practices of childbirth. As seen in figure 1, the birth rates per 1,000 population have gradually decreased since 1910. The exception to this is the period we refer to as the "Baby Boom" in the late 1940s to the early 1960s. The years immediately following the "Baby Boom" saw a substantial decrease in the birth rate due to the social

movements, such as the women's rights, and social changes occurring in America (Johnson 2008; Parry 2008; Weitz & Sullivan 1986). Since the 1970s, the birth rate in the U.S. stayed relatively low. In 2009, for the first time in recorded history, women aged 30-34 gave birth to more babies than women aged 20-24. Teenage mothers are at a record low also. Hispanic women have the highest birth rate within the U.S. while non-Hispanic white women and Asian women have the lowest (Martin, Hamilton, Osterman, Curtin, & Mathews 2013).

In addition to the demographics of childbirth and the birth rates changing over the past century, the ways in which women think about childbirth and the actual techniques used have changed. In the early 1900s, most women gave birth in their homes with only a woman neighbor or family member in attendance. However, by the middle of the 20th century, this had already changed dramatically. By 1950, roughly half of women were having babies in hospitals with a physician in attendance. In just twenty more years, out-of-hospital births had dropped to only 1% of all births. Out-of-hospital births stayed low until the mid-1990s. Although, out-of-hospital births were still below 2% in 2012, it has gradually increased since then. Today, two-thirds of out-of-hospital births occur at home with a midwife in attendance. The other third occur at freestanding birthing centers with midwives, doulas, and physicians in attendance. The highest rates of out-of-hospital births are occurring to non-Hispanic white women over the age of 30 with low risk pregnancies (MacDorman, Mathews, & Declercq 2014; Martin, Hamilton, Osterman, Curtin, & Mathews 2013). Most out-of-hospital births occur in the western portion of the U.S. with the lowest reports being in the southern states (MacDorman, Mathews, & Declercq 2014).

Of all racial/ethnic groups, non-Hispanic white women had the highest caesarean section rate (23.6%) in 1989, but in 2012 black women had the highest caesarean section rates of 35.8% (Martin, Hamilton, Osterman, Curtin, & Mathews 2013). Caesarean section rates have increased over the past 30 years in all race and ethnic categories. Roughly a third of all births regardless of race and ethnicity occurred via caesarean section in 2012 compared to only a fifth in 1989. This is in part due to the increase in age of women giving birth. It is important to note that the increase in caesarean section rates have drawn the attention of federal agencies and mandates to lower the rate of caesarean sections have been issued and selective caesarean sections are not allowed before gestational week 39 (Martin, Hamilton, Osterman, Curtin, & Mathews 2013). This has lowered the rate slightly over the past 10 years. Also, it is worth noting that the use of forceps and vacuums have decreased steadily since records have been kept on this technique and in 2012 the usage rate for forceps or vacuums to assist in birthing was down to 3.4% of all births (Martin, Hamilton, Osterman, Curtin, & Mathews 2013). Although some women still see the biomedical model of childbirth as the preferred, many are seeking alternative to these medical, less impersonal options.

The interesting transitions in childbirth raise questions as to what is occurring within the U.S. to prompt these shifts, why some Americans are rejecting the ideology of the biomedical model of childbirth, and who is holding alternative ideas of childbirth. These types of questions have led to the following five research questions for the present study:

1. Which age groups hold more favorable attitudes towards natural childbirth techniques?
2. Do non-Hispanic whites have the most positive attitudes and opinions towards natural childbirth techniques than Hispanic whites and non-whites?
3. How does education influence attitudes and opinions of various childbirth techniques?
4. Do healthy lifestyles influence attitudes towards natural childbirth techniques?
5. What role does geographical location play in attitudes and opinions towards various childbirth techniques?

## **THEORETICAL FRAMEWORK**

### *Health Lifestyles*

By the early twentieth century there was a distinct need for a sociological approach to health lifestyles. The widely adopted definition of lifestyle in many public health and related fields was an individualist approach, which neglected the structural influences on individual choices. Sociological analysis of lifestyle begins with the work of Max Weber (1914, 1922) and continues in the contemporary work of Anthony Giddens (1987, 1991) and Pierre Bourdieu (1984), among others. While the biomedical model and similar ways of thinking approach lifestyles as individual phenomena, these sociologists emphasize the enabling or constraining character of social structures. Cockerham (2005, 2007) synthesizes these various approaches to develop a health lifestyles theory, defining health lifestyles as "collective patterns of health-related behaviors based on choices from options available to people according to their life chances" (Cockerham 2005:55).

Weber's influence can be seen in this definition, as health lifestyles theory focuses largely on the interplay of life choices and life chances. In other words, health lifestyles emerge from the interplay between structural conditions and social characteristics on the one hand and individual choices on the other. In this way, individual and group level lifestyle patterns emerge from the dynamics of life chances and life choices (Hinote 2014).

Lifestyles, however, begin with life chances (Cockerham 2005, 2007). Individuals are born into existing structures that shape the resources that each will typically have access to in life (i.e., social class, living conditions, group memberships, etc.) All of these factors and others influence the probability of finding the "good things in life"; in other words, life chances either restrict or empower individual choices. Life chances also set the stage for our socialization, and as Cockerham (2005, 2007) notes, life chances are internalized to form a habitus, which essentially represents a set of dispositions that guides our future health behaviors. Once the individual enacts a lifestyle from the interplay of chances and choices and the dynamics of habitus, those behaviors tend to be reproduced. This is why lifestyle patterns are, like life chances and habitus, remarkably durable over time, across the life course and often intergenerationally.

In summary, various elements of social structure (life chances, eg. social class, age, gender, race/ethnicity, collectivities, and living/working conditions) shape choices (e.g., childbirth) for individuals and groups. These categories affect choices by providing a range of realistic behavioral options from which to choose, as well as guidelines to choose the most appropriate options available. Cockerham (2005, 2007) notes that these processes generate health lifestyles that include alcohol use, smoking, diet and exercise,

as well as physician utilization and many other health behaviors (Hinote 2014). While recent research applies this framework in various ways in multiple settings (e.g. Hinote & Webber 2012; Phelan & Link 2013; Wasserman & Hinote 2012), this study seeks to examine how life chances influence birthing options.

### *Life Chances*

Factors associated with life chances are an important part of this study, and they are a very important part of social life in general. As mentioned above, Weber devoted considerable time to this concept. More recently, Ralf Dahrendorf (1979:28) defines life chances as "the sum total of opportunities offered to the individual by his society, or by a more specific position occupied in society." This means that rules and resources, either negatively or positively, influence individual's available opportunities. These are socially constructed variables that are placed on individuals and social groups (Hinote 2014). Cockerham (2007) adopts a similar definition, noting that Weber's life chances refer to the range of opportunities people have available to them, as well as the probability of finding success with those choices. However, life chances, as mentioned above are assigned at birth, and although they are somewhat open to change, they shape opportunities across the life course and in specific ways. Much research treats age, race/ethnicity, class, and gender as individual phenomena, but these concepts go beyond the individual and tie into broader social groups and to society.

### *Structural Variables*

Cockerham (2007) states that age, class, race, ethnicity, and living conditions are not an individual characteristic but are structural variables that affect a group of individuals who belong to the same cohort. A cohort effect is defined as an effect that relates a larger group of individuals who share common behaviors, attitudes, characteristics, etc. because of a certain attribute (e.g. age, class, race, ethnicity, living conditions). These variables surpass individual characteristics and link individuals to cohorts that aid in studying phenomena that affects individuals beyond certain social groups. People in any given cohort will have similar socialization and experiences with others in that particular cohort. The realization of structural variables helps researchers see associations that affect larger cohorts that outstretch individual or even class position phenomena. An example would be the women's movement of the 1970s. Women in the younger age cohorts, such as the baby boomers, and middle to upper class cohorts embraced a more liberal ideology than those of previous generations because of their exposure to the events related to the women's movement. Another example is the Tuskegee Syphilis studies that led to a distrust of the medical field by African-Americans that to this day still hinder some receiving proper health services (Cockerham 2010).

### **LITERATURE REVIEW**

In the following pages, I briefly examine literature on various cohort effects found in women's reproduction and sexual activity. The literature shows what previous research has revealed about the effects of various life chances on women's reproduction options, such as birthing options. Some cohort effects can and do overlap and can be seen in this

section. Dehlendorf, Harris, and Weitz (2013) found that women who engage in sexual intercourse at young ages often face challenges later in life. There has been a consistently higher rate of minority women partaking in sexual activity at young ages and before marriage than their white counterparts (Dehlendorf, Harris, & Weitz 2013; Grant 2000; Mosher, Jones, & Abma 2012; Scott 2005; Sonfield, Hasstedt, Kavanaugh, & Anderson 2013). These women are often unprepared for the challenges that may arise, such as an unplanned pregnancy. Lower class, younger, and minority women are more likely to have abortions to postpone the costs and responsibilities that come with caring for a child. Although abortions are not cheap, lower class, younger, and minority women can obtain abortions from less reliable sources to reduce cost (Dehlendorf, Harris, & Weitz 2013; Mosher, Jones, & Abma 2012; Sonfield, Hasstedt, Kavanaugh, & Anderson 2013). Abortions also eliminate the doctor and hospital fees that accumulate over the course of a pregnancy and the costs after birth for raising a child (Dehlendorf, Harris, & Weitz 2013). Although abortion is not a part of this study, it is noted that patterns in abortion rates have similar demographic patterns as alternative birthing rates, thus looking at these patterns will help us better understand the dynamics of birthing techniques (Dehlendorf, Harris, & Weitz 2013; Mosher, Jones, & Abma 2012; Sonfield, Hasstedt, Kavanaugh, & Anderson 2013).

Minority women and women in lower social classes do not feel as if they have many options open to them, and often they do not. Grant (2000) states that minority women feel as if they have limited options when it comes to health care. They do not have the same access, services, or personal treatment as white women. Physicians do not always see beyond the race/ethnicity of their patients. This is the case with patients of

lower social standing also (Grant 2000). White women typically receive better care from their physicians because of their insurance, class, education, etc. (Bergeron 2007; Fox & Worts 1999; Grant 2000; Johnson 2008; Momota & Horii 2013; Moore 2011; Overgaard, Fenger-Gron, & Sandall 2012; Scott 2005; Weitz & Sullivan 1986; Westfall & Benoit 2004).

In relation to minority women having few resources, geographical location can and does create addition barriers for women. Women living in rural areas or in inner-city areas are more likely to have few options open in way of physicians, hospitals, medication, etc. Grant (2000) also states that when one lives in a rural community, the health services available may be limited. One does not have to live in a rural area to encounter difficulties receiving health care. If individuals live in an area that is geared towards servicing people of higher educational attainment and class, then if they fall outside of that realm they may not be able to navigate the systems to receive the proper care. Even if one lives in the same geographical area as another person, the health services available may not be the same. Within a metropolitan area, the characteristics of the different communities limit or enhance the services one has access to (Scott 2005).

Existing research suggests that middle to upper class women and women between the ages of 30-45 have more options available to them in the form of educational classes, especially those offered outside of hospitals, thus having more favorable attitudes towards alternative birthing techniques (Bergeron 2007; Fox & Worts 1999; Johnson 2008; Momota & Horii 2013; Moore 2011; Overgaard, Fenger-Gron, & Sandall 2012; Weitz & Sullivan 1986; Westfall & Benoit 2004). Another reason for the difference in lower class, younger, and minority women's attitudes towards alternative child birthing

techniques and those of women in middle to upper classes, who are older, and are white is cost. Most insurance companies do not cover alternative birthing options, especially if they occur outside of a hospital; thus, when women seek out alternative birthing options, cost is a concern. In addition, most alternative birthing techniques are not available in rural or inner city areas. This also leads to the different attitudes held by women (Craven 2007).

Hall, Griffiths, and McKenna (2011) and Holst, Wright, Hedvig, and Nordeng (2009) have conducted literature reviews in both medical and non-medical fields that show women in general are more accepting of alternative or complementary medicine. For many this acceptance extends into childbirth. However, Hall, Griffiths, and McKenna (2011) stated that many women still fear that without medical services, their unborn children could face health issues. This fear is not reduced by medical professionals. Many physicians and hospitals still are not accepting of most alternative or complimentary methods used (Adams, Lui, Sibbritt, Broom, Wardle, & Homer 2010; Spear 2006).

Holst, Wright, Hedvig, and Nordeng (2009) found that the majority of women who seek alternative birthing options are those with post-secondary education, have given birth previous to current pregnancy, and partake in alternative medicine and health practice prior to becoming pregnant. These women feel more empowered and as if they can control their situations.

Most women who choose alternative medicine during pregnancy and alternative birthing options are doing so because it is a lifestyle for them more than an alternative during this time. Although women are more accepting of alternative and complimentary medicine, most are discouraged from choosing alternative birthing options because

medical professionals fear the unknown (Adams, Lui, Sibbritt, Broom, Wardle, & Homer 2010; Hall, Griffiths, & McKenna 2011; Holst, Wright, Hedvig, & Nordeng 2009; Spear 2006). Even women with the most positive life chances are not seeking alternative birthing options because tradition still prevails in the U.S.

## **METHODOLOGY**

For the purpose of this study, I used Survey Monkey© to administer the life chances/birthing options survey to participants. An informed consent page was provided at the beginning of the survey that explained the purpose of the research and that the survey was voluntary. A small incentive was given in the form of a drawing for one of five twenty-dollar gift cards. Only nineteen participants entered the drawing for the gift cards. A random number generator was used to choose the five winners and gift cards were issued via postal services.

### *Data Collection*

A link to the survey was posted online on various social media sites. The survey was opened December 21, 2014 and closed on February 28, 2015. By completing the survey, participants voluntarily agreed to participate in the study. Once the survey was closed, the data were downloaded into SPSS© for analysis.

### *Sample*

The sample for this research was drawn from women aged 18 and older in the United States who use social media sites. It is a convenience sample. Social media gave an opportunity to collect data on a wide variety of ages, races/ethnicities, marital statuses,

geographic locations, social classes, and education levels. The target number of completed questionnaires was 150 to 200. A total of 123 surveys were collected. Ten surveys were missing values on either key dependent or independent variables and could not be used for analysis.

### *Dependent Variables*

The dependent variable for this study is birthing options. Birthing options include medical and non-medical birthing services that are common today. Definitions of each type of method were given. One general question, “Which birthing method would you most likely use if you were pregnant today?” was asked to help understand the basic attitudes of participants towards various birthing methods. This question was coded as (1) traditional medical, (2) personalized medical, (3) medical and natural, or (4) natural. Frequency distribution indicated that these categories contained a small number of cases and as such were collapsed into two different categories. Traditional and personalized medical were collapsed into (1) traditional birthing options. Medical/natural and natural birthing options were collapsed into (2) alternative birthing options. The recoded variable was labeled as Birth Option. I also asked participants detailed questions such as: how likely would you be to use a midwives/home births/non-emergency cesarean section/use of forceps or vacuum/birthing monitors/free standing birthing centers/doulas/hospital/etc. All birthing options questions were initially scored using a Likert scale (1 = absolutely, 2 = probably, 3 = probably not, 4 = absolutely not). I decided to collapse all the questions into a scoring of medical or alternative. I collapsed the scales in order to provide a more usable value. If the scales had not been collapsed, the results would have very numerous

and most would have not had enough responses in any one category to provide meaningful information.

All 12 medical questions were summed to create a medical birthing scale. Similarly, all 11 alternative questions were summed to create an alternative birthing scale. Once this was done, I computed the mean and median of both as well as the range. If participants scored greater than 35 on medical and less than or equal to 29 on alternative then I gave that participant a 1 (1 = medical preferences). If participants scored greater than 29 on alternative and less than or equal to 35 on medical then I gave that participant a 0 (0 = alternative preferences). This method was chosen to simplify the data in a manner that made it easier to analyze. All measurement information for original and recoded dependent variables can be found in Table 1.

### *Independent Variables*

Independent variables in this study consist of perceived individual attributes that are structural variables. Corresponding to each of my five research questions, I have included five key independent variables for the purpose of this study: age, race/ethnicity, education, healthy diet, and geographic location. Age was divided into two categories, 30 and under and over 30. Race was broken down into six categories used by the U.S. Census Bureau, namely (1) White, (2) Black or African American, (3) American Indian or Alaska Native, (4) Asian, (5) Native Hawaiian or Other Pacific Islander, and (6) Other. Ethnicity was coded as (1) Hispanic and (2) non-Hispanic. Participant's highest educational attainment was categorized as (1) less than high school, (2) high school diploma, (3) some college, (4) associate's degree, (5) bachelor's degree, (6) master's

degree, (7) Ph.D. or other terminal degree. Educational attainment levels were also based on U.S. Census Bureau general guidelines. Again, due to the small number of cases in each category, I collapsed into (1) high school or less and (2) some college or college degree.

The survey also contained questions pertaining to personal health habits such as diet. These questions were coded as (0) no or (1) yes. For example, one health question was “What types of foods and beverages do you typically consume on a weekly basis?” This question provided 6 “unhealthy” options and 6 “healthy” options to choose from. To simplify the data, I again used the method of computing scales as I did with preference of birthing options. This allowed me to include if the participants claimed to have a healthy diet along with the food and beverage choices they made on a weekly basis. Information for this scale was based on the governmental dietary guidelines.

Geographic location was assigned into the four main U.S. Census Bureau categories: (1) Northeast, (2) Midwest, (3) South, and (4) West, with a map included for participants who need clarification. Since there were not enough respondents from the various regions, I collapsed these categories into (0) non-Southern states and (1) Southern states. I also provided participants with choosing between (1) rural, (2) urban, and (3) suburban environments. All measurement information for original and recoded independent variables can be found in Table 2.

### *Analytical Strategy*

In order to find if any support for the research questions exist in this study, I used cross tabulation and conducted a chi-square test. Cross tabulation was selected because

variables were recoded into categories. First, I examined the descriptive statistics for all demographic and key variables. This allowed me to see the demographics and attitudes of respondents. Next, I ran a cross tabulations for all key variables (age, race/ethnicity, education, healthy diet, and geographic location,) to see any associations between the various independent variables and dependent variable. Next, I layered the two variables that showed significance to see if results varied for different categories. I used the chi-square test to see if the results were statistically significant and lend support for my research questions.

## **RESULTS**

### *Descriptive Statistics*

Descriptive statistics are presented in Table 3. Ninety percent of the sample was of white non-Hispanic origin while the other 8.9% consisted of black, Hispanic, American Indian, or Asian. Only one person did not report their race or ethnicity. Nearly 64% of the sample was under the age of 30. Nearly 72% of the sample favored medical birthing options over alternative. Also of importance to this study, 71% of participants reported having given birth at least once in their lives. Currently 6.2% of the sample was pregnant. Education attainment of participants was roughly 42% having a high school diploma or less and 58% having some form of college education. Region was not very well represented in this sample as 81.3% were from southern states. The majority of participants reside in either rural or suburban areas (45% and 37% respectively). Over half of the sample were married or in a committed relationship (62.5% and 13.4%

respectively) with less than a fourth not being in any form of committed relationship..

Lastly, 65% of the sample claimed to have a healthy diet while 35% did not.

### *Bivariate Analysis*

Two variables were statistically significant in this analysis - region of participant, whether participant has a healthy diet or not. All other variables show no statistically significant association but are included for descriptive and exploratory purposes.

Age. Table 4 shows that all respondents regardless of age preferred medical birthing options (under 30 = 72.2%, 30 & over = 70.7%) over alternative birthing options. These results were the most consistent in the study.

Race/ethnicity. When considering race/ethnicity and birthing preferences, non-Hispanic whites show more support for medical birthing options than those of other racial/ethnic groups. Roughly 73% of non-Hispanic whites preferred medical options over alternative options while only 64% of other racial/ethnic groups preferred medical options over alternative. However, the results were not statistically significant.

Education. Education had some impact on participants' attitudes towards alternative birthing options. Table 6 shows that both those who had a high school diploma or less and those who had some college education or degree were more supportive of medical options than alternative (HS or less = 76.6%, 23.4%; College = 68.2%, 31.8%). Although not statistically significant, those with at least a college degree were more likely to prefer alternative birthing options than those with less education.

Healthy Diet. As seen in table 7, roughly two-thirds (64.4%) of respondents who scored high on the healthy diet scale favored medical birthing options. Over a third

(35.6%) of these respondents favored alternative birthing options. In comparison, 85% of those who did not have a healthy diet preferred medical birthing options while only 15% claim to prefer alternative birthing options. According to the chi-square value of 5.411 at alpha level .05, there is a statistically significant association between healthy diet and birthing preferences.

Geographic Region. Table 8 shows the association between geographic region and birthing preferences. For respondents living in the south, three-fourths (75.8%) prefer medical birthing options and one-fourth (24.2%) prefer alternative birthing options. Respondents who reside outside of the southern region are almost evenly divided between medical and alternative birthing preferences. Just over half (52.4%) prefer medical birthing options. The association between region and birthing preferences is supported by the chi-square value of 4.595 at alpha level .05.

Table 9 shows that those who reside in an urban setting were more likely to favor alternative birthing options (40%) than those who reside in either rural or suburban setting (26% and 26.8% respectively).

Since there are associations between region and birthing preferences and healthy diet and birthing preferences, I wanted to explore the idea that the association between birthing preferences and healthy diet varies by region. As seen in Table 10, there is a difference in the southern and non-southern regions. When looking at those with a healthy diet in the southern and non-southern regions it is evident that in non-southern regions, the respondents have a higher preference for alternative (66.7%) than medical (33.3%) birthing options. In the southern regions, even those with healthy diets still prefer medical (70.0%) over alternative (30.0%) birthing options. There is not a very

substantial different between those who do not have a healthy diet in the two regions of this study. Both southern and non-southern respondents who did not have a healthy diet tended to prefer medical birthing options (87.1%, 77.8% respectively) while few prefer alternative birthing options (12.9%, 22.2% respectively). Only among non-southern regions, the association healthy diet and birthing preferences was statistically significant with the chi-square value of 4.073 at alpha level .05. When taking into account region in healthy diet and birthing preferences, there was no statistically significant association in the southern region (chi-square 3.259, alpha level .071).

## **DISCUSSION**

The results provided above are supported by the literature on birthing options preferences, region, and healthy diet. (Adams, Lui, Sibbritt, Broom, Wardle, & Homer 2010; Craven 2007; Grant 2000; Hall, Griffiths, & McKenna 2011; Holst, Wright, Hedvig, & Nordeng 2009; MacDorman, Mathews, & Declercq 2014; Scott 2005; Spear 2006). Throughout this study, preference for alternative birthing options is shown to still not be the norm. The medicalization of childbirth is seen as the traditional way and is encouraged by medical professionals, family and friends, primary education, etc. Many women lack the knowledge and available resources to make informed decisions regarding alternative birthing options (Bergeron 2007; Fox & Worts 1999; Grant 2000; Johnson 2008; Momota & Horii 2013; Moore 2011; Overgaard, Fenger-Gron, & Sandall 2012; Scott 2005; Weitz & Sullivan 1986; Westfall & Benoit 2004). This study, although limited, does show some commonly accepted beliefs about how women view alternative birthing options.

There were no differences in the two age categories examined in this study. Previous literature stated that typically women over the age of 30 were more supportive of alternative birthing options, but this was not the case in this study. Regardless of age, over 70% of women favored medical options. In contrast to age, there was a difference between women who had given birth and women who had not. The literature reviewed in this study did not mention ways in which women who have given birth and those who have not differed, but it could be stated that women who have given birth are older than those who have not and thus an age difference could possibly exist (Bergeron 2007; Fox & Worts 1999; Johnson 2008; Momota & Horii 2013; Moore 2011; Overgaard, Fenger-Gron, & Sandall 2012; Weitz & Sullivan 1986; Westfall & Benoit 2004). This association could also be spurious and explained by an unknown third variable, such as education or childbirth experience.

Racial/ethnic group differences were not supported by this study. Non-Hispanic whites did not favor alternative birthing options more than other racial/ethnic groups. In fact, more minority women favored alternative options than non-Hispanic whites (Grant 2000; Martin, Hamilton, Osterman, Curtin, & Mathews 2013). This is in stark contrast to the literature examined. Education also did not lend support for existing literature (Craven 2007; Scott 2005). Although a slightly smaller gap existed between those with some college education or degree on their support for medical and alternative, it was still enough to claim an association.

Research shows us that those who have healthier lifestyles are more open to alternative medicine and thus alternative birthing options (Adams, Lui, Sibbritt, Broom, Wardle, & Homer 2010; Hall, Griffiths, & McKenna 2011; Holst, Wright, Hedvig, &

Nordeng 2009; Spear 2006). Since this study only focused on women, we cannot compare the attitudes of men and women towards alternative birthing options. However, previous research has shown that women are more accepting of alternative medicine, include child birthing options (Hall, Griffiths, & McKenna 2011; Holst, Wright, Hedvig, & Nordeng 2009).

This study shows that women in southern regions are less likely to prefer alternative birthing options over medical birthing options than those in non-southern regions. One of the main reasons for this could be knowledge of alternative options and alternative resources. Women in southern regions are more likely to live in rural areas compared to women in the western or northeastern U.S. (Craven 2007; Grant 2000; MacDorman, Mathews, & Declercq 2014; Scott 2005) These women are also more likely to receive less education compared to women in the western or northeastern U.S. Alternative options are also fewer in the southern region of the U.S. because this region tends to be the more conservative, holding to traditional views of medicine, and lack resources. In the northeastern and western regions of the U.S., more emphasis is placed on education than in the southern region. The more education a person has, the more the person tends to be open to new ideas and hold more liberal beliefs. This is linked to the environment in which one lives. If people resides in a rural or suburban area, they may not have the resources available to them. Most alternative practices, such as midwives and freestanding birthing centers, are located in more urban centers while rural and suburban areas have access to traditional services, such as hospitals and physicians (Adams, Lui, Sibbritt, Broom, Wardle, & Homer 2010; Hall, Griffiths, & McKenna 2011; Holst, Wright, Hedvig, & Nordeng 2009; Spear 2006).

## **CONCLUSION**

The present study examined the relationship among birthing preferences and various life chances. The results were not as in-depth as had been originally anticipated, but do show the complexities of the effects of life chances on childbirth choices. Several findings were inconsistent with prior research. However, statistically significant associations between birthing preferences and healthy diet and birthing preferences and region were identified. Upon further examination, I found that the relationship between birthing preferences and healthy diet was dependent upon region. In the southern regions, birthing preferences were predominately for medical birthing options regardless of any other variables.

## **LIMITATIONS**

This was an exploratory study and had several limitations including time and resources. The sample relied on convenience and was not randomly selected. As such, the sample was not representative of a general population of women, and the results cannot be generalized beyond these participants. Future research should include both men and women and those who may not be on social media sites. If time and resources allow, future studies should utilize a random sample instead that of convenience. In addition, a possible restructuring of survey questions may be in order to make the survey easier to follow and to increase responses. Several questions were not deemed usable and thus should be reworded or omitted in future studies. It may also be useful to collapse categories, such as those mentioned to be collapsed above, to simplify the survey. Lastly,

the analysis only included bivariate associations; therefore, spurious relationships cannot be ruled out. Additional multivariate analyses would be needed.

Despite these limitations, the sociological importance of this study is that women's life chances do impact their life choices. Women's education, lifestyle, region, race, age, etc. impact personal preferences towards an array of options available. Age, race/ethnicity, and education were not examined in relation to healthy diet in the analysis. In the case of this study, these life chances impact how women view various birthing techniques and ultimately choose their birthing styles. In order to understand how we as individuals make choices regarding some of the most important things in our lives, such as childbirth, we first must understand how our life chances make us who we are. Cockerham's theory has opened a new way of examining social phenomena. For example, how life chances impact women's birthing preferences, which is a life choice, is just one of the many ways to use this new theory.

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APPENDICES

APPENDIX A – INSTITUTIONAL REVIEW BOARD APPROVAL



12/12/2014

Investigator(s): Victoria Foust, Meredith Dye

Department: Sociology

Investigator(s) Email: vef2c@mtmail.mtsu.edu; Meredith.Dye@mtsu.edu

Protocol Title: **"Birthing Options and Life Chances: How do life chances and health choices shape women's attitudes towards different birthing options?"**

Protocol Number: 15-137

Dear Investigator(s),

The MTSU Institutional Review Board, or a representative of the IRB, has reviewed the research proposal identified above. The MTSU IRB or its representative has determined that the study poses minimal risk to participants and qualifies for an expedited review under 45 CFR 46.110 and 21 CFR 56.110, and you have satisfactorily addressed all of the points brought up during the review.

Approval is granted for one (1) year from the date of this letter for 500 participants.

Please note that any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918. Any change to the protocol must be submitted to the IRB before implementing this change.

You will need to submit an end-of-project form to the Office of Compliance upon completion of your research located on the IRB website. Complete research means that you have finished collecting and analyzing data. **Should you not finish your research within the one (1) year period, you must submit a Progress Report and request a continuation prior to the expiration date.** Please allow time for review and requested revisions. Failure to submit a Progress Report and request for continuation will automatically result in cancellation of your research study. Therefore, you will not be able to use any data and/or collect any data. Your study expires **12/12/2015**.

According to MTSU Policy, a researcher is defined as anyone who works with data or has contact with participants. Anyone meeting this definition needs to be listed on the protocol and needs to complete the required training. **If you add researchers to an approved project, please forward an updated list of researchers to the Office of Compliance before they begin to work on the project.**

All research materials must be retained by the PI or faculty advisor (if the PI is a student) for at least three (3) years after study completion and then destroyed in a manner that maintains confidentiality and anonymity.

Sincerely,

Shelley C. Moore, PhD, MSN, RN  
Institutional Review Board  
Middle Tennessee State University

APPENDIX B – FIGURES

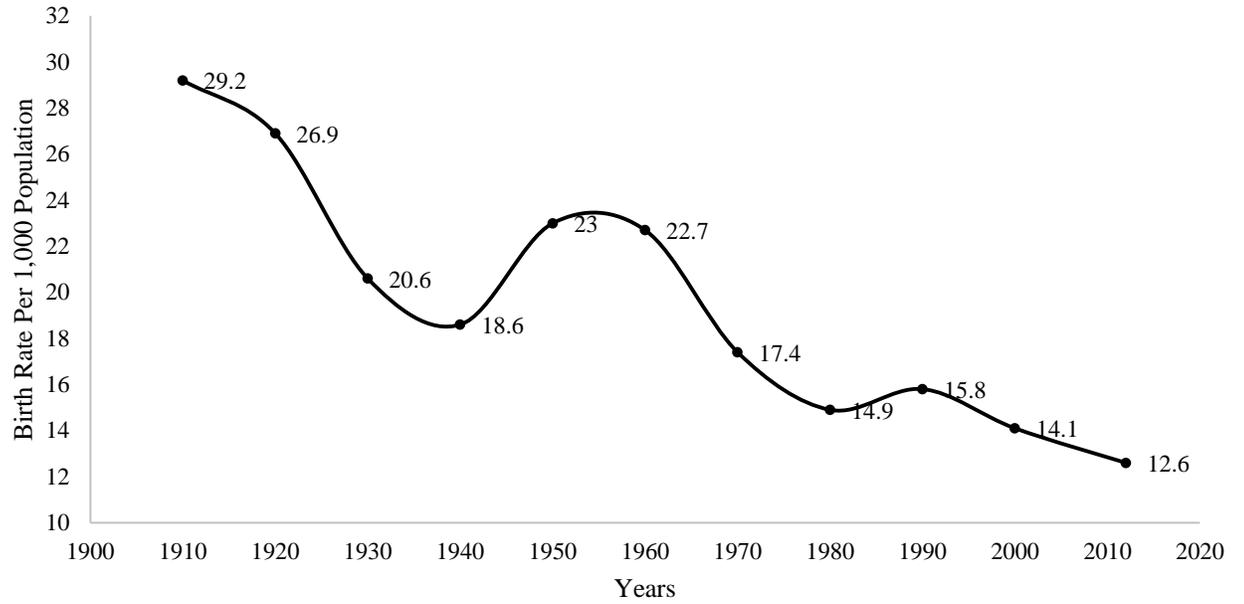


Figure 1. Birth Rate per 1,000 Population from 1910-2012

APPENDIX C – TABLES

Table 1. Dependent Variables and Their Measurements

Variable	Measurement
Current Method	1 = Traditional Medical 2 = Personalized Medical 3 = Medical and Natural 4 = Natural
Birth Option	1 = Medical 2 = Alternative
Medical Birth Options	1 = Absolutely 2 = Probably 3 = Probably Not 4 = Absolutely Not
Natural Birth Options	1 = Absolutely 2 = Probably 3 = Probably Not 4 = Absolutely Not
Medical Birthing Score	Range from 0 to 48
Alternative Birthing Score	Range from 0 to 44
Birthing Preference	1 = Medical Preference 2 = Alternative Preference
Health Diet	1 = Healthy Diet 2 = Unhealthy Diet

Table 2. Independent Variables and Their Measurements

Variable	Measurement
Age	Coded as actual age
Age Recode	1 = Under 30 2 = 30 and over
Race	1 = White 2 = Black 3 = American Indian or Alaska Native 4 = Asian 5 = Native Hawaiian or Other Pacific Islander 6 = Other
Ethnicity	1 = Hispanic 2 = White non-Hispanic
Race/Ethnicity Recode	0 = Non-White 1 = White non-Hispanic
Degree	1 = Less than high school 2 = High school diploma 3 = Some College 4 = Associate's degree 5 = Bachelor's degree 6 = Master's degree 7 = Ph.D. or other terminal degree
Education	1 = High school or less 2 = Some college or college degree
Personal Health Questions	0 = No 1 = Yes
Weekly Diet	Possible 6 unhealthy and 6 healthy choices
Health Diet	1 = Healthy Diet 2 = Unhealthy Diet
U.S. Region	1 = Northeast 2 = South 3 = Midwest 4 = West
Region Recode	0 = Non-southern states 1 = Southern states
Environment	1 = Rural 2 = Urban 3 = Suburban

Table 3. Descriptive Statistics for Variables of Interest

Variable	Percent	N
Birth Preference		113
Medical	71.7%	
Alternative	28.3%	
Race/Ethnicity Recode		112
Non-White	8.9%	
White non-Hispanic	91.1%	
Age		113
Under 30	63.7%	
30 and over	36.3%	
Region Recode		112
Non-Southern States	18.8%	
Southern States	81.2%	
Environment		111
Rural	45%	
Urban	18%	
Suburban	37%	
Education		113
High school or less	41.6%	
Some college or college degree	58.4%	
Marital Status		112
Single	19.6%	
In a committed relationship	13.4%	
Married	62.5%	
Separated	0	
Divorced	3.5%	
Widowed	0.9%	
Other	0	
Previous Birth		113
No	29.2%	
Yes	70.8%	
Currently Pregnant		112
No	93.8%	
Yes	6.2%	
Health Diet		113
Healthy Diet	64.6%	
Unhealthy Diet	35.4%	

Table 4. Cross Tabulation for Birthing Preferences and Age

Birth Preference	Age		Total
	Under 30	30 & Older	
Medical Preferences	52 72.2%	29 70.7%	81 71.7%
Alternative Preferences	20 27.8%	12 29.3%	32 28.3%
Total	72 100%	41 100%	113 100%

$$\chi^2 = 0.029, p = .866$$

Table 5. Cross Tabulation for Birthing Preferences and Race/Ethnicity

Birth Preference	Race/Ethnicity		Total
	White	Non-White	
Medical Preferences	74 72.5%	7 63.6%	81 71.7%
Alternative Preferences	28 27.5%	4 36.4%	32 28.3%
Total	102 100%	11 100%	113 100%

$$\chi^2 = 0.389, p = .533$$

Table 6. Cross Tabulation for Birthing Preferences and Education

Birth Preference	Education		Total
	HS or Less	College	
Medical Preferences	36 76.6%	45 68.2%	81 71.7%
Alternative Preferences	11 23.4%	21 31.8%	32 28.3%
Total	47 100%	66 100%	113 100%

$$\chi^2 = 0.957, p = .328$$

Table 7. Cross Tabulation for Birthing Preferences and Healthy Diet

Birthing Preference	Healthy Diet		Total
	Healthy Diet	Non-Healthy Diet	
Medical Preferences	47 64.4%	34 85.0%	81 71.7%
Alternative Preferences	26 35.6%	6 15.0%	32 28.3%
Total	73 100%	40 100%	113 100%

$$\chi^2 = 5.411, p = .020$$

Table 8. Cross Tabulation for Birthing Preferences and Region

Birth Preference	Region		Total
	South	Non-South	
Medical Preferences	69 75.8%	11 52.4%	80 71.4%
Alternative Preferences	22 24.2%	10 47.6%	32 28.6%
Total	21 100%	91 100%	112 100%

$\chi^2 = 4.595, p = .032$

Table 9. Cross Tabulation for Birthing Preferences and Environment

Birth Preference	Environment			Total
	Rural	Urban	Suburban	
Medical Preferences	37 74%	12 60%	30 73.2%	79 71.2%
Alternative Preferences	13 26%	8 40%	11 26.8%	32 28.8%
Total	50 100%	20 100%	41 100%	111 100%

$\chi^2 = 1.491, p = .474$

Table 10. Cross Tabulation for Birthing Preferences and Healthy Diet Controlling for Region

South	Healthy Diet	Non-Healthy Diet	Total
	Medical Preferences	42 70.0%	
Alternative Preferences	18 30.0%	4 12.9%	22 24.2%
Total	60 100%	31 100%	91 100%

$\chi^2 = 3.259, p = .071$

Not South	Healthy Diet	Non-Healthy	Total
	Medical Preferences	4 33.3%	
Alternative Preferences	8 66.7%	2 22.2%	10 47.6%
Total	12 100%	9 100%	21 100%

$\chi^2 = 4.073, p = .044$

APPENDIX D – SURVEY INSTRUMENT

This survey gauges women's attitudes toward medical and non-medical birthing options. By completing this survey you are consenting to be a part of this research; however, your participation in this survey is completely voluntary and you may stop at any time. The survey contains 25 questions and will take about 30 minutes to complete. At the end of the survey, you will find a link to enter a drawing for (1) of (5) \$20.00 gift cards. Entry for the drawing is optional. You do not have to fill out the additional information if you do not wish to be entered into the drawing. Additional information is in no way linked to your survey response. The survey is completely anonymous and voluntary. If you have questions about your participation in this survey, or you would like to know the findings of this research, you may contact Victoria Foust at [yef2c@mtmail.mtsu.edu](mailto:yef2c@mtmail.mtsu.edu) or (931) 607-8604. Thank you for your participation!

1. How familiar are you with the following childbirth options?	Not at all Familiar	Somewhat unfamiliar	Somewhat Familiar	Very Familiar
<b><u>Traditional medical practices</u></b> , that is, <i>in a hospital setting, where a physician and hospital staff make decisions for you and your unborn child.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b><u>Personalized medical practices</u></b> , that is <i>in a hospital setting, where you design a birthing plan in which a physician and hospital staff follows unless there is a medical emergency.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b><u>Mixed medical and natural practices</u></b> , that is, <i>where medical services are available upon request, but natural options are too. Example: you use a doula in a hospital setting or free-standing birthing center.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b><u>Natural practices</u></b> , that is, <i>foregoing all medical services in favor of natural birthing techniques.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Which birthing method would you most likely to use if you were pregnant today?
- Traditional Medical                       Personalized Medical  
 Mix of Medical and Natural             Natural

**The following questions are asking you about previous pregnancies (if any) or plans to become pregnant in the future.**

3a. Have you ever given birth?

- Yes             No

3b. If yes, in what year did you have your child or children? (If you have multiple children, please list year of first birth and last birth)

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3c. If yes, how would you describe your birth experience (physically and emotionally)?

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3d. If yes, which type of birthing techniques did you use?

- Traditional Medical                       Personalized Medical  
 Mix of Medical and Natural             Natural  
 Other (Please Specify) -

---

3e. Did you have a birth plan, that is *a way for you to communicate your wishes to the midwives and doctors who care for you in labor. It tells them about the type of labor and birth you'd like to have, what you want to happen, and what you want to avoid?*

- Yes             No

4a. Are you currently pregnant?

- Yes             No

4b. If no, do you have plans to become pregnant?

- Yes             No

5. Would you consider having a birth plan, that is *a way for you to communicate your wishes to the midwives and doctors who care for you in labor. It tells them about the type of labor and birth you'd like to have, what you want to happen, and what you want to avoid??*

- Absolutely Not  
 Probably Not  
 Probably  
 Absolutely

6. Where did or do you get most of your information about available birthing options?

(Please Check All That Apply)

- |                                                       |                                                                       |
|-------------------------------------------------------|-----------------------------------------------------------------------|
| <input type="checkbox"/> Medical Office or Hospital   | <input type="checkbox"/> Personal Connections (friends, family, etc.) |
| <input type="checkbox"/> Internet, Social Media Sites | <input type="checkbox"/> Internet, Health Oriented Websites           |
| <input type="checkbox"/> Magazines or Books           | <input type="checkbox"/> Personal Experience                          |
| <input type="checkbox"/> Other (Please Specify)       |                                                                       |

The following questions are about various medical and natural childbirth options available. Please indicate your preference for each of these options.

	Absolutely Not	Probably Not	Probably	Absolutely
<b>7. Medical Childbirth Options</b>				
Would you want to receive prenatal screenings to find defects with the embryo or fetus?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you allow your doctor to make all decisions regarding your pregnancy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you allow your doctor to make all decisions regarding your labor?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you allow your doctor to make all decision regarding your delivery?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you want an epidural?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you want to use fetal monitors during labor?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you want to automatically receive an IV when being admitted into the hospital?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you want your labor to be induced?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you want to receive medicine (besides an epidural) for pain?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>Would you want the physician or hospital staff to use forceps for any reason?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you want the physician or hospital staff to use a vacuum for any reason?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you voluntarily choose a caesarian section?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<b>Absolutely Not</b>	<b>Probably Not</b>	<b>Probably</b>	<b>Absolutely</b>
<b>8. Natural Childbirth Options</b>				
<b>Would you consider using a midwife without a physician's care?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you consider using a midwife with a physician's care?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you consider using a doula?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you consider a home birth?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you consider a birth at a freestanding birthing center or midwife center?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you consider a water birth at home?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you consider a water birth at a birthing center or medical facility?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you like the option to be mobile during labor?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you want to try alternative pushing positions during delivery?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>Would you try natural remedies during pregnancy for symptoms such as morning sickness, heartburn, swelling, etc.?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Would you want to try alternative options before choosing medical intervention during labor and/or delivery?</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**To put your responses in context, the following questions ask about your demographic and lifestyle characteristics. All responses are confidential.**

9. Age as of last birthday: \_\_\_\_\_

10. Sex:       Female       Male

11. Race/Ethnicity:

- |                                                                    |                                                    |
|--------------------------------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> White                                     | <input type="checkbox"/> Black or African American |
| <input type="checkbox"/> American Indian or Alaska Native          | <input type="checkbox"/> Asian                     |
| <input type="checkbox"/> Native Hawaiian or Other Pacific Islander | <input type="checkbox"/> Hispanic/Latino           |
| <input type="checkbox"/> Other                                     |                                                    |

12. What is the highest degree you have received?

- |                                                        |                                                     |
|--------------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Less than high school diploma | <input type="checkbox"/> High school diploma or GED |
| <input type="checkbox"/> Associate's Degree            | <input type="checkbox"/> Bachelor's Degree          |
| <input type="checkbox"/> Master's Degree or equivalent | <input type="checkbox"/> Doctoral or equivalent     |

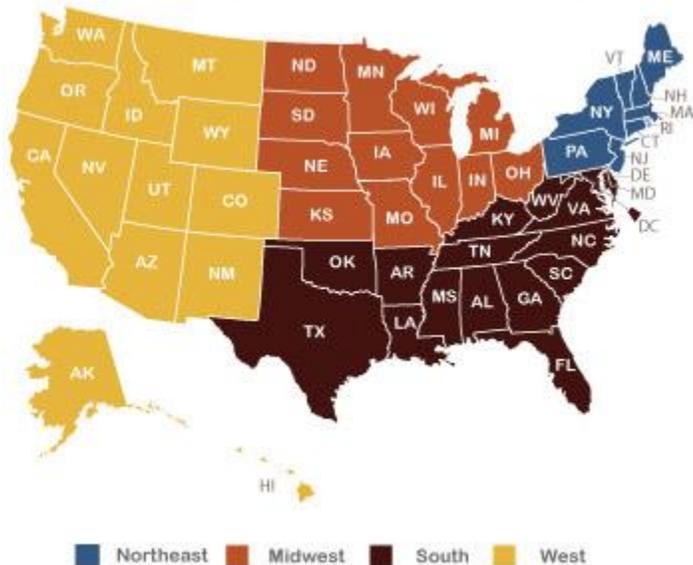
13. In what field does your occupation fit?

- |                                                             |                                                                    |
|-------------------------------------------------------------|--------------------------------------------------------------------|
| <input type="checkbox"/> Management, Business, and Finance  | <input type="checkbox"/> Science                                   |
| <input type="checkbox"/> Architecture and Civil Engineering | <input type="checkbox"/> Hospitality, Tourism, or Service Industry |
| <input type="checkbox"/> Trades and Transportation          | <input type="checkbox"/> Law and Law Enforcement                   |
| <input type="checkbox"/> Arts and Communications            | <input type="checkbox"/> Education and Social Services             |
| <input type="checkbox"/> Health Care and Allied Health      | <input type="checkbox"/> Computers and Technology                  |
| <input type="checkbox"/> Other (Please Specify) _____       |                                                                    |

14. Current Marital Status:

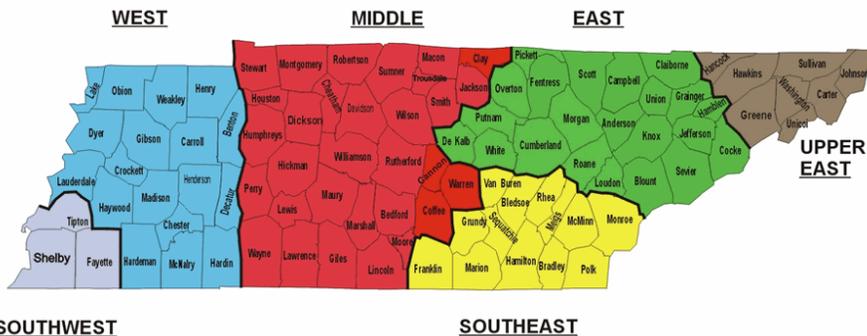
- |                                                 |                                    |
|-------------------------------------------------|------------------------------------|
| <input type="checkbox"/> Single                 | <input type="checkbox"/> Married   |
| <input type="checkbox"/> Committed Relationship | <input type="checkbox"/> Separated |
| <input type="checkbox"/> Divorced               | <input type="checkbox"/> Widowed   |
| <input type="checkbox"/> Other                  |                                    |

15a. Using the map below, indicate which region you currently reside.



- Northeast     Midwest  
 South         West

15b. If you live in the state of Tennessee, in which region do you reside? (Refer to the map below)



- West             Middle         East  
 Southwest     Southeast     Upper East

16. Household Income: \_\_\_\_\_

17. Do you rent or own your own place?

- Rent             Own

18. Do you live in a house, apartment, condo, other?

- House         Apartment     Condo         Other (Please Specify) \_\_\_\_\_

19. Do you live in a rural, urban, or suburban area?

- Rural       Urban       Suburban

20. How safe do you feel your neighborhood is?

- Very Safe       Somewhat Safe       Safe Enough  
 Somewhat Unsafe       Very Unsafe

21. Do you smoke?

- Yes       No

22a. Do you drink alcohol?

- Yes       No

22b. If yes, how often do you drink alcohol?

- 0-2 times per week       3-6 times per week  
 7 or more times per week       0-4 times per month  
 5-10 times per month       10 or more times per month

22c. Do you drink alcohol in excess when you drink (more than 3 beverages)?

- Yes       No

23. Do you see a physician for all yearly check-ups?

- Yes       No

24a. Do you exercise?

- Yes       No

24b. If yes, how often do you exercise?

- 0-2 times per week       3-4 times per week  
 5-6 times per week       7 or more times per week

25a. Do you maintain a healthy diet?

- Yes       No

25b. What types of foods and beverages do you consume on a daily basis?

(Please select all that apply)

- |                                                          |                                                               |
|----------------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> Organic fruits and vegetables   | <input type="checkbox"/> Free-range meats                     |
| <input type="checkbox"/> Processed foods                 | <input type="checkbox"/> Unpasteurized dairy products         |
| <input type="checkbox"/> Water                           | <input type="checkbox"/> Sodas or Other Caffeinated Beverages |
| <input type="checkbox"/> Juices (Organic, Self-Squeezed) | <input type="checkbox"/> Fast Food or Restaurant Food         |
| <input type="checkbox"/> Homegrown Food                  | <input type="checkbox"/> Store Bought Foods                   |
| <input type="checkbox"/> Store Packaged Meats            | <input type="checkbox"/> Frozen Foods                         |