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Increasing Access to Prenatal Care: The Impact of Access Barriers and Proposed Strategies to Overcome Them

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Abstract

For a country with such a technologically advanced health care system, the United States has an alarming infant mortality rate. The disparities in birth outcomes for low-income black women compared to white women of the same socioeconomic status are even more disturbing. Prenatal care is considered to be an effective method of reducing poor birth outcomes like preterm birth and low birth weight, but access to prenatal care continues to be an issue. There are several known barriers to care, including demographic, financial, structural, and personal barriers, that pregnant women must overcome to receive adequate prenatal care. With increased access to prenatal care for black women, disparities in pregnancy outcomes can be eliminated. This literature review examines the impact of access barriers and evaluates the effectiveness of strategies for increasing access to prenatal care. The literature is systematically reviewed, and several proposed strategies are considered. It is found that the most promising method to increase access is combining decentralized programs. Further research is needed to create and implement ideas to address personal and attitudinal barriers to care, which seem to have more of an effect on pregnant women’s motivations to seek prenatal care.

Keywords: Access Barriers, Prenatal Care, Adequacy, Prenatal Care Strategies

Although the United States boasts a technologically advanced healthcare system, the country’s infant mortality rates continue to stand out among the rates of other industrialized countries. Within the last twenty years, the US has been ranked 20th or lower among developed countries in its infant mortality rates. Between 1995 and 1999, the United States infant mortality rate dropped to 27th among comparable countries and ranked just above Hungary and Slovakia (Hogue and Vasquez, 2002). Every year, nearly 30,000 infants die because of low birthweight (LBW) (Cook, Selig, Wedge, & Gohn-Baube, 1999). Preterm births contribute to this high number because children born well before their estimated due dates tend to have much lower birth weights than children with full-term births.

While infant mortality and LBW is an overwhelming national problem, there is a significant underlying issue. There has been an increasing disparity between black and white women and their birth outcomes. In 1997, black infant mortality was 2.4 times that of white infant mortality in the United States (Sims and Rainge, 2002). Two of the objectives for Healthy People 2000 and 2010, national health statements designed to identify the most significant preventable threats to health, are to eliminate the racial disparities in infant mortality and increase participation in prenatal care, especially for African Americans (Milligan et al., 2002).
A possible contributing factor to the disparities between the birth outcomes of black and white women may be the significant difference in prenatal care participation. Black women are less likely than white women to obtain care in the first trimester. They also have fewer visits in the third trimester (Gardner, Cliver, McNeal, & Goldenberg, 1996). Black women have traditionally had elevated medical and socioeconomic risks, which can impact health services utilization and birth outcomes before and during pregnancy. Several studies have shown that although there have been various targeted interventions for this population, black women continue to have higher rates of LBW and premature labor and delivery than other women in the U.S. population (Covington and Rice, 1997). In 1991, the neonatal mortality rate for blacks was 130 percent higher than for whites, and in some African American communities, the infant mortality rates surpass the national average by nearly 20 percent (Cook, Selig, Wedge, and Gohn-Baube, 1999).

Prenatal care has long been advocated as a crucial method to improve birth outcomes and reduce disparities. The goal of this literature review is to highlight the impact of access barriers and to discuss innovative strategies to overcome these barriers and improve access to prenatal care. This paper will begin by discussing the importance of and the history of prenatal care. It will then explain the problem of access and identify the barriers to prenatal care and how such issues inhibit pregnant black women from seeking out and actively participating in prenatal care. It will also explore the relationship between the barriers and the adequacy of prenatal care. Finally, it will examine the effectiveness of existing strategies for improving access to prenatal care, and propose additional solutions to the problem of access to care.

The Importance and History of Prenatal Care

Prenatal care has been proposed as a solution to the problem of disparities in birth outcomes, but it has not always had widespread support. It was recognized as early as 1915 that prenatal care in the first trimester and continuous care during pregnancy lowered both maternal and infant mortality. It was not until the 1970s, however, that the expansion of social support programs enabled an increase in prenatal attendance and a decrease in neonatal mortality. There has been a great deal of financial and human resources dedicated to enhancing prenatal care since then. The federal government spends more than $7 billion annually to improve access to prenatal care. Despite these significant advances, many pregnant women continue to receive inadequate or no prenatal care, and their infants remain at high risk for morbidity and mortality (York et al., 1999).

Even though the relationship of prenatal care to lower infant mortality may be controversial, there has been a definite association between black women with low utilization of prenatal care and high infant mortality rates (Milligan et al., 2002). Early and regular prenatal care optimizes both maternal and child health because it facilitates health promotion and illness prevention. When there is a relationship created between the healthcare provider and a pregnant woman, the provider is better able to treat the woman and help her to have a healthier pregnancy. Prenatal care allows for early diagnosis and treatment of medical problems. Despite the importance of such care, the rate of inadequate care in the United States exceeds acceptable limits, particularly among low-income black women (Cook, Selig, Wedge, & Gohn-Baube, 1999).
Along with general prenatal care, there has been a push for more specialized preconception care and interconception care. Preconception care is defined as a set of interventions that aim to identify and modify biomedical, behavioral, and social risks to a woman’s health or pregnancy outcome through prevention and management. To be the most effective, these efforts must be acted on before conception or early in pregnancy. Preconception care includes care before a first pregnancy or between pregnancies (interconception care). The goal of preconception care in the United States is to provide health promotion, screening, and interventions for the more than 62 million women of childbearing age to reduce risk factors that might affect future pregnancies (Johnson, 2006). Improving preconception health among women of childbearing age will require a multi-strategic, action-oriented initiative (Johnson, Atrash, and Johnson, 2008). Properly used preconception care also has the potential to further reduce the black/white disparity in birth outcomes.

Even though prenatal care is not universally accepted as the “golden solution” to the problem of disparities in birth outcomes, it is the most promising. Lack of prenatal care has been associated with poor perinatal outcome for almost 50 years (Gardner, Cliver, McNeal, & Goldenberg, 1996). Although the relationship between prenatal care and lower infant mortality rates is not concrete, in populations at high medical and social risk, such as many low-income black communities, there is a definite association between low prenatal care utilization and high infant mortality rates. This makes the advocacy of prenatal care a positive step to decreasing health disparities in birth outcomes (Milligan et al., 2002). Prenatal care is necessary for improving birth outcomes by reducing LBW and preterm births. With increased care, black women may be able to improve their birth outcomes and reduce the mortality of their infants.

The Problem of Access

Important questions to consider are: Why are black women less likely to receive prenatal care? When they do receive prenatal care, why are they more likely to receive inadequate care? These questions sum up the dilemma that is faced by many clinicians, researchers, and others in the public health field. These individuals work diligently to develop new and more effective ways to engage women in prenatal care (York et al., 1999). There have been large-scale efforts to improve access to prenatal care, including the expansion of Medicaid. Such efforts have focused primarily on the elimination of financial barriers, but there has been evidence that the availability of insurance and a medical home does not guarantee that pregnant women will receive adequate prenatal care (Cook, Selig, Wedge, & Gohn-Baube, 1999). Other issues like cost and delivery of care as well as personal and family problems can play a major role in a woman’s ability to access care. In order to create effective solutions to the problem of access, public health professionals must define and understand the different barriers to prenatal care.

The Barriers of Prenatal Care

Barriers and motivators

Barriers are defined as the many states, conditions, or events that make it difficult or prevent a woman from successfully obtaining prenatal care. Motivators are internal factors that cause a woman to seek and attain prenatal care or those factors external to the individual that enhance opportunity for prenatal care (Milligan et al., 2009). It is important to understand that barriers come in many different forms. This paper discusses the demographic, financial, structural, and personal barriers that inhibit women from seeking out prenatal care. Motivators,
while not as extensively researched, are equally important because such factors have the potential to advance the strategies proposed to improve access to prenatal care. By exploring the affect of different motivators, public health professionals can help women to overcome the barriers that impede adequate care.

**Demographic Barriers**

One inherent barrier that pregnant women face when accessing adequate prenatal care is their demographic background. Research has shown that black women have poorer birth outcomes than white women, that they tend to receive prenatal care later than white women, and that they are more likely to receive inadequate prenatal care than white women. Before a pregnant woman even attempts to seek out care, she already faces barriers that include her race, socioeconomic status, and educational background. The population at greatest risk for inadequate or no prenatal care has been well-characterized as low-income, multiparous, unmarried nonwhite women with less than a high school education (York et al., 1999).

**Financial Barriers**

Financial barriers are characterized as specific issues that arise as a result of a woman’s socioeconomic status. Poverty seems to be the most detrimental barrier faced by pregnant women attempting to access adequate prenatal care. A survey taken in Milwaukee, Wisconsin found that blacks lived in areas with significantly higher poverty, unemployment, and high school drop outs than whites (Sims and Rainge, 2002). When dealing with such poor economic conditions, accessing prenatal care becomes much more difficult. After noting the poor use of this key service by certain subgroups, including black women, researchers have conducted numerous studies in which financial barriers have been identified as a key impediment (Harvey and Faber, 1993).

In response, many federal and state policies have expanded Medicaid eligibility to provide coverage for pregnant women with family incomes below 133% of the federal poverty level. Several states, counties, and cities have even initiated community-based programs that address financial barriers to care (Harvey and Faber, 1993). These actions help to address the lack of insurance problem faced by many pregnant women. Even though millions of Americans live without health insurance, women who are younger and are part of an ethnic minority group (Hispanics, Blacks, and Asians) are the most likely to be uninsured (Johnson, 2006). The uninsured rates contribute to the low numbers of black women accessing prenatal care. By expanding Medicaid eligibility, these efforts enable pregnant women to have the financial ability to access prenatal care. However, there is little evidence that removing financial barriers alone will increase access and use of prenatal care. Also, the current literature in this area suggests that enrollment of Medicaid is not necessarily associated with the receipt of adequate prenatal care (Harvey and Faber, 1993). It is important to consider the role that other barriers have in impeding women from receiving early and adequate prenatal care.

**Structural Barriers**

Structural barriers are challenges created by external factors and rooted in the financing and organization of the health care delivery system. They can be subdivided into financial obstacles, such as program funding, and organizational barriers, such as difficulties with child care arrangements, inconvenient hours, long waits, and lack of information about sources of
prenatal care (Harvey and Faber, 1993). These barriers cause programs and providers to be less effective, and lead to less access to prenatal care for pregnant women in need. When funding is lowered, there are fewer resources available to help these women. When women face problems with organizational barriers, they are less likely to seek out and actively participate in adequate prenatal care. Financial hardships not only affect pregnant women on an individual level, but they also influence the effectiveness of health care and community health programs. The cost of healthcare is a major issue that plagues many public health programs and healthcare systems. They rely on external funding from both governmental and private sources to cover the costs of care. Many health centers receive a portion of their total revenue from direct federal grants, but the largest contributor is Medicaid. It pays out more than one-third of total revenues. Payments from patients, private insurance, and amounts of non-federal grants and contracts make-up most of the remainder of health center funding (Johnson, 2006). Additionally, federal grants have not kept up with the cost of patient care, covering only 50% of average costs for an uninsured patient, a steady decline since 2001 (Wilensky and Proser, 2008). Thus, any federal or state fiscal decisions that affect Medicaid and other program appropriations have the ability to negatively affect the financial well-being of health programs. When programs do not achieve adequate funding, they are unable to handle the costs of the services that they provide. Insuring adequate funding is an essential part of making sure there are prenatal services available to women in need.

The organization of a program is a crucial part of its success and utilization. A program’s efficiency makes it easier for women to access its services. Some documented barriers that are centered on a program’s efficiency include previous unsatisfying experiences with prenatal services, including culturally inappropriate care and poor treatment in the system due to race, particularly for blacks (Milligan et al., 2002). These issues make women less likely to seek out or continue to participate in prenatal care. When they have negative experiences with a healthcare system or provider, they are less likely to return and more likely to discontinue prenatal care altogether. It has also been reported that black women are less likely to receive advice concerning health behaviors from health caregivers than are white women (Gardner, Cliver, McNeal, & Goldenberg, 1996). This type of racial discrimination in the healthcare system creates an environment of distrust and hurt for the patient. If they feel like they cannot trust their provider or their staff, a patient is less likely to form the close medical relationship that is an essential part of prenatal care.

Another problem related to efficiency of community health programs and systems is the inconvenience factor. Many pregnant women cite the long waits and lack of transportation and child care as major barriers to their reduced utilization of prenatal care. In a comprehensive study, the state of Idaho found that institutional barriers explained many of their prenatal care access problems. In one example, a young single mother had no transportation or child care, and when she did make it to her prenatal appointments, she had to wait for hours (Machala and Miner, 1991). Even as changes have been made to the healthcare system, women continue to report lack of access to childcare and transportation as the predominant barriers to prenatal care. Also, growing professional costs and concerns about liability and malpractice insurance and litigation has led to a decline in the number of obstetricians and obstetrical practices (York et al., 1999). All these structural barriers create problems for pregnant women by making it difficult for them to be motivated to initiate or continue care.
Personal Barriers

Among the least studied access barriers to prenatal care are personal barriers. Personal barriers are issues that affect women on an individual basis, such as lifestyles and belief systems. These barriers include living conditions, drug use, family support, beliefs about prenatal care, and attitudes toward pregnancy. In one study, 75 percent of the women surveyed cited personal issues as a barrier to prenatal care, and five categories of personal barriers were identified: care was poorly valued or understood, the pregnancy was unknown, ambivalence or fear about pregnancy, alcohol or drug use, and excessive physical or psychological stress (Harvey and Faber, 1993). Since personal barriers are the least studied, it would be beneficial to examine them further and assess their effect on pregnant women’s utilization of prenatal care.

There are several different types of personal barriers to prenatal care. When women have personal issues in their lives, they are less likely to be motivated to seek out and continue participation in prenatal care. The living conditions in which a woman lives can significantly affect her personal life. Neighborhood location is associated with health disparities by race. Black women of lower socioeconomic status who live in poorer neighborhoods are at the highest risk for poor birth outcomes. Studies have shown such environments can be very stressful to anyone, but to a pregnant woman, environmental stress can be extremely detrimental to both maternal and infant health. Williams and colleagues (1975) found that women who experience major life stressors during and before their pregnancy were more likely to deliver prematurely than those who experienced fewer stressors. Inadequate social support has also been associated with less optimal birth outcomes, including delivery of low birth weight infants (Cook, Selig, Wedge, and Gohn-Baube, 1999).

Having a network of social support is ideal for a healthy pregnancy. In a focus group study with pregnant and postpartum women and other community members, it was found that several themes were pervasive. The role of the baby’s father and family support were both important issues in the women’s utilization of prenatal care. The barrier of social support, which has not been frequently articulated as an impediment to care, plays an important role in a woman’s birth outcome. The role of the baby’s father is important because he becomes a motivator for the pregnant woman and his involvement has the ability to improve her condition (Milligan et al., 2002).

Drug usage has also played a major part in why some women fail to seek out prenatal care. When women who use illicit drugs or abuse alcohol get pregnant, they may be afraid to seek out the prenatal care they know they need because they are afraid of sanctions for their poor health habits. They do not want to risk the chance that the healthcare providers will judge them or report them to authorities. They often feel that the staff at their providers’ offices is disrespectful and judgmental. Also, when these women become addicted to drugs, their addiction may take over their lives. One women in a drug focus group stated, “I was so far out, drugging and using. I had a son that was born, he was born at five month, he weighed [sic] 1 lb. and 8 oz.” (Milligan et al., 2002). For such women, drug addiction becomes their primary need, and their pregnancy is secondary. Understanding drugs as a barrier to prenatal care is necessary to help women to overcome their addiction and to improve the health of their infants.

Another personal barrier that affects pregnant women is their attitudes about and
knowledge of prenatal care. The way a woman feels about prenatal care plays a major role in her utilization of prenatal services. Many women who do not think that prenatal care is important tend to get inadequate care. There are also some women who know little about the importance of prenatal care. When they do not know what kind of services are available, they are less likely to seek out care. When women have both a low value for and little understanding of prenatal care, they are eight times more likely than women who know about and value prenatal care to get inadequate prenatal care (Harvey and Faber, 1993). How a woman feels and what she knows can have a serious impact on her actions, and because many women do not know about the importance of prenatal care, they do not think it is very important. By providing prenatal education to women, public health professionals can help prevent these types of attitudes.

An attitudinal barrier that remains separate from a woman’s beliefs about prenatal care is her feelings about her pregnancy. When pregnancies are unplanned, many women may not react positively to the news that they are expecting. She may feel upset, unsure, or frightened at the thought of giving birth and becoming a mother. This may even lead to a feeling of depression. While this is not considered the most difficult barrier, it has been cited the most frequently. Depression during pregnancy can make it even more difficult for women to access good prenatal care. Attending the clinic for prenatal visits can be very challenging for a woman suffering with depression because she may be dealing with a lack of energy, ambivalence, and social withdrawal (Cook, Selig, Wedge, and Gohn-Baube, 1999). Forty-six percent of woman who had inadequate care identified ambivalence or fear about the pregnancy as preventing them from obtaining care, and 35 percent said they experienced excessive stress and depression (Harvey and Faber, 1993). By addressing the negative feelings and depression that some pregnant women face, providers can help pregnant women to overcome this barrier so that the women’s ability to seek quality prenatal care will be greatly increased.

Personal barriers are very complex, individualized issues that affect all women differently. Depending on their lifestyle and personal situation, some pregnant women face additional problems that can negatively affect their pregnancies. While many personal barriers may seem like social issues, it is important to realize the connection between problems like living conditions and family support and poor birth outcomes. By examining these problems, public health professionals can better understand the relationship between access barriers and the adequacy of care that pregnant women receive.

The Relationship between Access Barriers and Adequacy of Care

The adequacy or quality of prenatal care that women receive is an important factor in increasing access to prenatal care. Adequacy of care refers to the quality of the prenatal services that pregnant women receive. The Adequacy of Prenatal Care Utilization Index (APNCU) was developed by Kotelchuck in 1994 to develop a summary index for adequacy of prenatal care. On the APNCU, prenatal care is considered inadequate if visits begin after the fourth month of pregnancy or fewer than one-half of the American College of Obstetrics and Gynecology recommended visits were made (Cook, Selig, Wedge, and Gohn-Baube, 1999).

Adequacy of care becomes an issue with increasing access because of the relationship between adequacy and access barriers. In a study in which this relationship was examined, 43 percent of the mothers surveyed received inadequate care. Those women reported an average of
5.7 access barriers compared with only 2.9 for women who received adequate care. It was also found that the average difficulty rating for those barriers were higher for women who received inadequate care. The barriers that were associated most often with higher rates of inadequate care were poor family support and other personal issues such as mental health and living conditions. Women who reported personal barriers to accessing prenatal care were four times more likely to receive inadequate care than those women who did not report personal barriers to care (Cook, Selig, Wedge, and Gohn-Baube, 1999).

Although it was reported less often, financial barriers also played a role. In another study, 67 percent of women who received inadequate care stated that a lack of money or insurance had been a barrier in their accessing prenatal care, compared to 28 percent of women who received adequate care. Also, more than three times as many women who received inadequate care had problems paying for medical care. Some women also identified structural barriers as impediments to prenatal care. Seventy-nine percent of women who received inadequate prenatal care cited the organizational type of barriers as the main obstacles. This included problems with appointments, transportation issues, and long waits (Harvey and Faber, 1993). Although adequacy of care is just one factor associated with improving access to prenatal care, it is imperative to understand the relationship between adequacy and access barriers. Women who face more barriers are more likely to receive poor prenatal care. The issue of access not only addresses strategies to encourage more women to receive prenatal care, but it also calls attention to the need for good quality prenatal care.

Existing Strategies to Increase Access to Prenatal Care

Once the barriers to care are identified, it becomes possible to take the next steps to increase access to prenatal care. Creating solutions and strategies to improving access is a necessary component of combating this problem. An important method to this is to refocus the agenda issue of infant mortality. Hogue and Vasquez (2002) noted that when infant mortality was front-page news, the nation acted quickly. Federal and state governments responded proactively to help this problem and expanded Medicaid coverage to achieve the goal of universal access to prenatal care. While they commend these efforts, Hogue and Vasquez (2002) found that the nation lost interest before this goal was reached. They suggest that preconception care become the focus of improving prenatal access. By helping women to visit their providers before they conceive, the relationship between pregnant woman and physician can be fostered early on. When a woman does conceive, she would be more likely to return to her doctor because she would be educated about the importance of prenatal care.

Another strategy to highlight prenatal care extends to the public programs that are already in place. By maximizing federal and state programs, professionals have the potential to increase access to prenatal care. Programs like the federally funded community health centers, Healthy Start, and family planning provide an important service in communities with high concentrations of women in need. By expanding these types of programs, more women will be served and services will be improved (Johnson, Atrash, and Johnson, 2008).

While this seems like a relatively simple solution, it becomes difficult to execute because of the gap between government funding and the amount necessary to effectively expand the programs to reach their full potential. Community health centers provide prenatal care for more
than 17 percent of births to low income women in the United States. The comprehensive, community-oriented approach is an ideal setting for the delivery of preconception care to traditionally at-risk women. Healthy Start programs provide another vital aspect of prenatal services. They have included interconception care as a part of their program. This is the type of medical care that introduces preconception care during pregnancies for optimal birth outcomes. They use case management, staff teams, and a focus on diagnosing and treating underlying disease and health conditions. Title X family planning clinics are also federally funded, and they provide sexual and reproductive health services to over six million women in the United States, most of whom are teens and young women under the age of 25. Such clinics have the potential to expand their services to include interconception care (Johnson, Atrash, and Johnson, 2008).

The community health center model is another proposed solution to the issue of access to prenatal care. This model allows women to have access to a local health center that adjusts its services to specific communities. Women would be able to seek treatment in their own neighborhoods and have access to staff members that understand their needs, such as language barriers and location issues. In 2004, the Arizona Association of Community Health Centers was awarded a contract by the U.S. Department of Health and Human Services to create the Arizona Rural Frontier Women’s Health Coordinating Center (RFCC). It sought to address the needs of women in Arizona’s rural areas by providing a wide array of services to women and their families. The RFCC tailored its services to the specific needs of the communities. Community health centers also include specially funded programs like pregnancy centering and adolescent health programs (Wilensky and Proser, 2008). Creating more community-based programs using the community health center model will help more women to access prenatal care by allowing them to have their specific needs met. This model has the possibility of being successful if properly funded because it includes a variety of programs and helps to remove some access barriers. By being located in and serving a specific community, many structural barriers, like transportation issues and language differences, can be eliminated. Another proposed strategy to increase access to prenatal care is the piecing together of many decentralized programs. Although there are a great deal of effective programs that help many women get valuable services, many of these programs function alone and are not congruent with others. Machala and Miner (1991) used the analogy of a patchwork quilt to describe how many effective programs should be pieced together to create an efficient network of services. Many women face extreme difficulty when trying to access prenatal care. They may have no transportation or childcare. When they try to get an appointment at a local clinic, they might have to wait several weeks just to confirm pregnancy and then a few more weeks for a follow-up appointment. A woman may be told that she qualifies for other services like Women, Infants, and Children (WIC) food supplements or state welfare, but must wait an additional two weeks to get approved for those programs. These complications make it very difficult for women to access care and continue receiving care throughout their pregnancy. By connecting more programs and services, women can access them in a more convenient manner.

Using this strategy, District V in Idaho created the Public Health District V Pregnancy Program. It created more comprehensive prenatal services in which pregnant women participate in two appointments a month, one for WIC and one for medical care with a physician or nurse practitioner at the local hospital or doctor’s office. The program also enhanced the job of the public health nurse by redesigning the position’s responsibilities to include home visits by the
nurse. The nurse provided counseling, appointment help, risk assessment, health promotion, and referrals. By enhancing this position, the program increased the amount of help that clients received and improved the adequacy of care.

The piecing together of programs seems to be the most efficient of proposed strategies. It combines the best of the methods to create a good solution to the problem of access. After two years of a centralized program in Arizona, LBW babies decreased from 6.6 percent to 5.6 percent. Also, there was a decrease in drop-in deliveries, which means that fewer women were going into the hospital to deliver their babies after having received no prenatal care. The study also revealed a decrease in very low birth rate babies by 50 percent, and a decrease of 1,000 newborn intensive care unit days, which saved the system $300,000 (Machala and Miner, 1991). While these results were from data collected only after the first two years of the program, they are very promising. Combining programs to create a network that works for the needs of pregnant women is an effective way to increase access to prenatal care. This model addresses the barriers that impede women by providing affordable care or coverage, personal support, and other benefits. By removing access barriers, women will be able to access the care that they really need. With proper funding, this model has the potential to be a successful solution to the problem of access to prenatal care.

Conclusion

Although there have been many successful advances in prenatal care, infant mortality continues to be a significant public health issue in the United States. There are many women and children who do not receive the care they need, and access to prenatal care seems to be the most beneficial method to decreasing the alarming rates of infant mortality. The racial health disparities in birth outcomes remains an ongoing problem, and increasing access to prenatal care for black women may prove to be a valuable solution.

There are several identified barriers to prenatal care including demographic, financial, structural, and personal barriers, all of which impede a woman from receiving adequate care. Although financial barriers are a key impediment, personal barriers by far outweigh them. Women seem to be most hindered by personal barriers when seeking out prenatal care. By exploring these barriers and understanding how they affect pregnant women, it is possible to create effective solutions and interventions so that women can gain more access to adequate care. Adequacy is related to access barriers because access barriers contribute to inadequate care. The more barriers a woman faces, the more likely she is to receive inadequate care.

There are many strategies to improve access to prenatal care. This paper focused on several that included expanding existing programs, the community health center model, and combining decentralized programs. Of these solutions, the concept of combining programs seems the most promising because it joins the best methods to increase access to pregnant women. It helps women to get all the help they need in a more unified environment and provides a support system for healthier pregnancies.

There has been a great deal of research in the field of racial disparities in birth outcomes, but most have focused on the impact of demographic and financial barriers to care. There is a need for further research on personal barriers, especially on the role of racism as a form of
maternal stress for black women. There is also a need for further research on the effectiveness of strategies to improve access to prenatal care, like the community health center model and combining decentralized programs. By exploring the value of these solutions, there can be more successful interventions created. Effective programs and healthcare systems provide adequate prenatal care to the women they serve and have the ability to improve pregnancy outcomes. Although prenatal care is accepted as a solution to poor birth outcomes, black women still have less access to adequate care. Increasing access to prenatal care for these women has the potential to improve pregnancy outcomes and reduce disparities, which will lead to reduction of the high infant mortality rate.
References


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