**Failure to Provide for Infants and Mothers:**

**Why the United States Faces a High Infant Mortality Rate**

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Abstract

The United States faces an extremely high infant mortality rate compared to other countries. This is surprising because the U. S. is a developed country and has elite medical services. There are many researchers that propose several different reasons for this issue. Some of the proposed reasons include varying definitions for infant mortality, birth defects, incidents such as Sudden Infant Death Syndrome (SIDS), obstacles in receiving quality medical care, and factors of the mother. Obstacles in receiving quality medical care was found to be a large contributor because it affects the care of the infant from conception until the end of their life. Factors of the mother were also found to be important with African American mothers being more likely to have a child that will die in the first year than white mothers. Additionally, it was found that financial discrepancies in mothers can increase the likelihood of infant mortality due to a lack of access to quality medical care and the stress on the mother of not having a high income. All of these causes are widely cultural and are interconnected.

*Keywords*: infant mortality, infant mortality rate, United States

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The infant mortality rate may just look like a number to some, but the reality of that number is parents and families being shattered by the loss of human life. Why is it that in the United States, the number of infants dying before they reach the age of one is so high? This is a heavily researched problem with multiple answers. Some researchers have found that high infant mortality rates may simply be due to the way the U. S. and its individual states define infant mortality compared to other countries and/or states. Others believe that the infant mortality rate can be attributed to birth defects or incidents, such as Sudden Infant Death Syndrome (SIDS). Researchers also found that the infant mortality rate could be due to the lack of accessibility to medical care caused by a lack of redistribution of wealth or geographical obstacles. Some researchers suggested that it may have to do with factors from the mother, such as ethnicity or stress levels. Regardless of the cause, it is important to find solutions and decrease the number of infants dying every year in the United States.

**Background**

Infant mortality is defined as the number of deaths of infants less than a year old per 1,000 live births (King, D., & White, M., 2005). The issue of infant mortality is one that has been important since the early ages and will continue to be important until the end of time. The experience of being pregnant and birthing is different for every woman depending on when they are living, where they are living, ethnicity, access to medical care/services, income, and many other things. In the past, it was not uncommon for a woman to produce children that were stillborn or would not live very long. This may be because lack of medical knowledge at that time; however, infant mortality continues to be a problem, even for women in developed countries, such as the United States. The United States ranks fifteenth overall in infant mortality rates globally (Muennig, P., Reynolds, M. M., Boshen Jiao, & Pabayo, R., 2018). If the reasons for having such a high infant mortality rate are pinpointed, then the U. S can decrease the infant mortality rate and give infants a better chance at living.

**Research Question**

The research question proposed was, “why is the infant mortality rate in the United States so high?” This question was proposed because the U. S. is an extremely developed country with advanced medical care, but many infants are still dying. It is important to find out why so that the infant mortality rate can be decreased.

**Search Criteria**

In order to research this topic, I used online databases through the Greenwood Library at Longwood University. These databases included peer-reviewed journals and articles. The data bases I used include Academic Search Complete and Alt HealthWatch. The keywords I used include words and phrases, such as “infant mortality rate in the U. S.” or “infant mortality in the U. S.” I also used different names for the U.S. with the same previous phrases, but using “United States” or “America” instead of “U. S.” It was extremely important to me to make sure the data I was using was about the United States. Additionally, I only used scholarly journals that were reviewed or edited by at least one other person. Lastly, I made sure to only use articles that were fairly recent. The oldest article used is fifteen years old. This was important because this topic is constantly changing as more material and data is collected and analyzed.

**Literature Review**

The first solution that researchers found as to why the infant mortality rate in the U. S. is so high is the way different states and countries define infant mortality. One article thoroughly analyzed the differences in the way a collection of states in the United States define infant mortality. In “Developing a Standard Approach to Examine Infant Mortality: Findings from the State Infant Mortality Collaborative (SIMC),” researchers found that there were many reasons for high infant mortality rates in each state including their definition infant mortality, timeliness of the report, and gestational age of the infant (Stampfel, C., Kroelinger, C., Dudgeon, M., et al., 2012).

The researchers specifically reviewed the years 2004-2006 and the State Infant Mortality Collaborative (SIMC) selected five states, Delaware, Hawaii, Louisiana, Missouri, and North Carolina, to examine. Multidisciplinary teams from the five states met with infant mortality experts in 2004 to present their infant mortality data, share analytic approaches in one forum, and discuss ongoing state interventions. Upon meeting, they identified possible errors that may skew their data and found that most of these errors occurred due to definition of infant mortality at the time, timeliness of reports, and gestational age of the infant (Stampfel, C., Kroelinger, C., Dudgeon, M., et al., 2012). Similarly, the article “Why Is Infant Mortality in the United States So Comparatively High? Some Possible Answers,” found that definition of infant mortality could be contributing to the infant mortality rate (Muennig, P., Reynolds, M. M., Boshen J., 2018).

The SIMC proposed many preventative measures to lessen infant mortality rates. It was found throughout the states that infant mortality can be highly attributed to birth weight distribution. In the future the SIMC recommends examining the extremes of infant size and age, which may contribute signiﬁcantly to overall IMR (Stampfel, C., Kroelinger, C., Dudgeon, M., et al., 2012). This article proves that the high infant mortality rate could be the cause of reporting errors, but it also uncovered other reasons for the high infant mortality rate.

Additional causes for the infant mortality rate in the United States are birth defects and incidents after birth, such as Sudden Infant Death Syndrome (SIDS). In the article, “Infant Mortality Attributable to Birth Defects - United States, 2003-2017,” the researchers carefully looked at the infant mortality rate and how many of those infant deaths were due to birth defects (Almli, L. M., Ely, D. M., Ailes, E. C., et al., 2020). The researchers found that from 2003-2017 birth defects were the leading cause of infant mortality in the United States. It has been shown that infant mortality due to birth defects varies among what gestational age the baby was born at (Almli, L. M., Ely, D. M., Ailes, E. C., et al., 2020). Another article also found that birth defects caused a high amount of infant deaths. It was found that in North Carolina prematurity and related issues contributed greatly to the infant mortality rate (Stampfel, C., Kroelinger, C., Dudgeon, M., et al., 2012). Similarly, the article, “Infant and Neonatal Mortality Rates in the United States,” found that in previous years between 2001-2002 the infant mortality rate increased, with most deaths occurring in the neonatal period and mostly among mothers aged 20-34, traditionally seen as a low risk group. The increased mortality rate was mostly among infants born prematurely and at very low birth weights (King, D., & White, M., 2005). An article from the *Maternal & Child Health Journal* found that deaths due to congenital anomalies are the majority of infant death within the first year, while preterm births are the leading cause of death in the early neonatal stage (Collins, J. W., Colgan, J., Rankin, K. M., et al., 2018).

Incidents, such as Sudden Infant Death Syndrome (SIDS), are another contributor to infant mortality. In the *Maternal & Child Health Journal,* it was found that SIDS is the leading cause of death in the post-neonatal period. Neighborhood poverty during infancy is an established risk factor for overall and SIDS-specific post-neonatal mortality among White infants (Collins, J. W., Colgan, J., Rankin, K. M., et al., 2018).

In another source, a chiropractor analyzed the impact of SIDS on the infant mortality rate and proposed that SIDS is preventable (Mawhiney, R. B., 2005). Mawhiney found that SIDS is reported to happen up to five thousand times a year. In the past it was believed that SIDS was caused by the infant sleeping on its stomach; however, the author states that trauma to the phrenic nerve, located in the cervical spine, is the most logical cause of SIDS. The nerve controls the diaphragm, which controls how humans breathe and the turning of the baby’s head during birth causes damage to this nerve. The author stated that SIDS became a problem after the turning of the skull was established as a routine birthing procedure. The chiropractor gave several examples of patients he had treated and doctors he had trained in order to support his ideas (Mawhiney, R. B., 2005).

While Mawhiney’s claims are controversial and there is no proven cause of SIDS, there is no doubt that it contributes to the infant mortality rate. In a previous article, it was found that Missouri showed a large increase in infants dying from SIDS and implemented classes on “safe sleeping.” There were also proposed Infant Health interventions to address sleep position, breastfeeding practices, and injury prevention (Stampfel, C., Kroelinger, C., Dudgeon, M., et al., 2012). Whether damage to the nerve during labors or unsafe care after hospital discharge is the cause of SIDS both issues stem from faults of medical care.

Faults of the medical care system and obstacles in receiving quality medical care are large causes for the high infant mortality rate in the United States. There may be extremely high-quality medical care available, but it does not mean that everyone has access to it. An article titled “Why Is Infant Mortality in the United States So Comparatively High? Some Possible Answers,” analyzed some possible reasons for infant mortality in the U. S. and found that most of the reasons were due to a lack of accessibility to quality medical care (Muennig, P., Reynolds, M. M., Boshen J., 2018). The researchers found that infant mortality is especially high in the United States with the country standing fifteenth overall in respect to infant mortality rates. Such a high percentage of infant mortality in the United States can be attributed to social and health service factors. High IMR in the U. S. may be due to the accessibility to insurance, lack of redistribution of wealth, and geographical obstacles and not as directly related to the medical care itself. Women in low income rural places are having more children but have a lack of access to quality medical care. Low income families can also become increasingly poor as they have more children (Muennig, P., Reynolds, M. M., Boshen J., 2018).

Quality medical care is available and was proved in two previous articles, “Developing a Standard Approach to Examine Infant Mortality: Findings from the State Infant Mortality Collaborative (SIMC)” and “Infant Mortality Attributable to Birth Defects - United States, 2003-2017.” In one article it was found that in Delaware most of the deaths occurred early in the neonatal period, so they published infant death data in order to try to identify the causes of these deaths. The SIMC proposed many preventative measures to lessen infant mortality rates. Maternal Care interventions typically focus on prenatal care, referral systems, or high-risk obstetric care interventions (Stampfel, C., Kroelinger, C., Dudgeon, M., et al., 2012). Another article found that overall, from 2003 to 2017 there was a decrease in infant mortality due to birth defects, which could be contributed to better prenatal care, birth defect prevention measures, and better medical care for infants born with birth defects (Almli, L. M., Ely, D. M., Ailes, E. C., et al., 2020). Based on the findings from those two articles, there is quality medical care and preventative practices available, but because of financial and geographical reasons they are not available to everyone; therefore, the infant mortality rate continues to be high in the U. S.

One last set of possible reasons for the high infant mortality rate in the U. S. is factors of the mother including ethnicity and stress. There were many articles proposing that the ethnicity of the mother plays a role in infant mortality. In the article, “Developing a Standard Approach to Examine Infant Mortality: Findings from the State Infant Mortality Collaborative (SIMC)” it was found that infants of African American mothers had a higher chance of mortality than those of white mothers (Stampfel, C., Kroelinger, C., Dudgeon, M., et al., 2012). Similarly, in “Infant Mortality Attributable to Birth Defects - United States, 2003-2017” it was found that infant mortality due to birth defects has a higher rate if the mother is black, compared to if the mother is white (Almli, L. M., Ely, D. M., Ailes, E. C., et al., 2020). Once again in the *Maternal & Child Health Journal,* it was found that African American mothers show an even higher infant mortality rate than that of white mothers (Collins, J. W., Colgan, J., Rankin, K. M., 2018).

Another article analyzed the ethnicity of the mother and whether she was native born or an immigrant. In the article “Why Is Infant Mortality in the United States So Comparatively High? Some Possible Answers” it was found that women who are native born have a higher risk of infant mortality than do immigrant mothers. It was concluded that the longer a woman stays in the U. S., the higher the risk of infant mortality. Immigration has declined in recent years, therefore, less immigrants are having children in the U. S. has led to an increase in IMR (Muennig, P., Reynolds, M. M., Boshen J., 2018).

In “Infant and Neonatal Mortality Rates in the United States,” discrepancies in the race of the mothers whose infants die within the first year was closely analyzed (King, D., & White, M., 2005). The article found that infant deaths have decreased over the years but, the discrepancy in infant mortality of white mothers versus African American mothers increased. This may be due to the rates of infants born at low birth weights. There were discrepancies found between infant mortality at low and very low birth rates of white mothers and African American mothers, which may have contributed to the discrepancies between infant mortality rates between the two groups. It was found that of the analyzed racial groups, American Indians/ Alaskan Natives had the highest rates of neonatal deaths. It was concluded that there is still a discrepancy in infant mortality of racial groups, which reflects that these groups have different needs (King, D., & White, M., 2005).

Lastly, stress of the mother may be a viable reason for the high infant mortality rate in the United States. A previously mentioned article found that the U. S. shows extremely high stress levels for mothers and a sharp decline in overall happiness. This stress may be caused by the macroeconomic shift in the U. S. that is classified by women working harder, being more stressed, and having less disposable income due to increases in health care (Muennig, P., Reynolds, M. M., Boshen J., et al., 2018).

Similarly, an article from the [*Maternal & Child Health Journal*](javascript:__doLinkPostBack('','mdb~~cmh%7C%7Cjdb~~cmhjnh%7C%7Css~~JN%20%22Maternal%20%26%20Child%20Health%20Journal%22%7C%7Csl~~jh','');) found that stress on a mother can cause infant mortality (Collins, J. W., Colgan, J., Rankin, K. M., et al., 2018). The article looked at the stress levels of mothers in Chicago that had varying levels of economic status. Rates of income descent were then classified into groups. The researchers examined maternal birth weight, age, parity, adequacy of prenatal care, and cigarette smoking as covariates. The incidence of the chosen co-variants increased as income descent became more prominent. Among women who received intermediate or adequate prenatal care and experienced descending neighborhood income had nearly a fourfold greater infant mortality rate than their counterparts who had a lifelong residence in affluent areas. In Chicago, the majority of affluent-born White mothers experience descending neighborhood income between birth and their childbearing years. The researchers concluded that the trend may be due to the stress that comes with a decrease in income. The study found that the infant mortality rate of women who experienced moderate to severe income descension was approximate to that of African American women. The study also found that affluent white women that experienced little to no income descension experience one third of the infant mortality that African Americans experience. This concurs that lower-class status is an important, but not the only, factor in racial disparity of infant mortality rates. (Collins, J. W., Colgan, J., Rankin, K. M., et al., 2018). This article ties in the ideas of there being a problem with redistribution of wealth and those people who are less fortunate not receiving quality medical care. Because of the stress of having a lack of income and fearing that the mother and child are not being taken care of, the infant has a higher chance of dying within the first year.

**Findings, Revisit of Research Question**

After analyzing the previously mentioned articles, it was found that infant mortality can be attributed to many different factors. Although the United States has elite medical care, it is not accessible to everyone due to geographic or financial reasons. It was found that finances are a common stressor for soon-to-be mothers, which can increase the likeliness of infant mortality. There was also a common theme of racial discrepancies in mothers who have children that die within the first year of their lives. This may mean that mothers who are not white may have insufficient or no medical care at all due to a lack of money or geographic location. This can lead to stress on the mother and even more likeliness of infant mortality. It was also found that incidents, such as SIDS, are more likely to happen to non-white mothers. This may be due to a lack of medical knowledge for the after care of the child, again because of the lack of quality medical care. Largely, it was found that the reasons for the United States having such a high infant mortality rate are cultural.

**Future Research Questions**

If I researched this topic further in the future, I would mostly focus on the topic of cultural causes for the high infant mortality rate in the United States. The article that discussed the infant mortality rate being attributed to the lack of redistribution of wealth, geographical obstacles in receiving quality medical care, stress of the mother, and other cultural issues would be a starting point for the research (Muennig, P., Reynolds, M. M., Boshen Jiao, & Pabayo, R., 2018). I would then go more in depth into what exactly is causing this lack of redistribution of wealth and what does it mean for the day to day life of the people experiencing it. Also, I would analyze what the causes are of this stress on the mother, such as the article that analyzed the stress levels of mothers and their varying economic statuses (Collins, J. W., Colgan, J., Rankin, K. M., & Desisto, C., 2018). It would be interesting to look at the stress levels of mothers over the decades, what the causes are of that stress, and the infant mortality rate of each time period in order to possibly find a link between stressors and infant mortality. After researching those cultural causes and stressors, I would lastly try to find possible solutions to these issues in order to improve the quality of life for Americans, whether they are pregnant or not.

**Conclusion**

In conclusion, infant mortality continues to be an issue globally. In the United States, Americans face a comparatively high infant mortality rate, even though the U. S. is a largely developed country. These causes are primarily cultural, including a varying definition of infant mortality, birth defects, incidents including SIDS, obstacles in receiving quality medical care, and factors of the mother. These causes need to be analyzed closely and solutions need to be found in order to lessen the amount of infant death in the United States.

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