

# Introduction

Analyzing and understanding the impacts of an unhealthy newborn is of extreme importance. The newborn health is especially important for health in later childhood and even in adult life.

There are several factors that contribute to the health of a newborn. One of most impactful is birthweight. Low birthweight babies (below 2,500 grams) are at greater risk of developing diabetes and hypertension later in life. They are also less likely to reach their educational or economic potential and may require more resources while taking care of them.

Pregnancy trends have been changing mostly due to better access to quality healthcare and the changing role of women in society. The latter is contributing to women postponing their pregnancies until later stages in their lives, a phenomenon that is not yet fully understood from a scientific standpoint. In the United States, birth-rates for women in their 30s are at the highest levels in three decades. This trend is present in the data analyzed, where 68% of the mothers are in a risk age range beyond 35. Understanding factors that are affecting the birth weight, especially in the age range where little scientific study has been done, are important to minimize problems postpartum. One of the leading worries in couples who are planning pregnancy is the health of the baby conceived. There are studies of health trends for mother and father to follow, foods and vices to keep away from, as well as a pattern of activities to follow for a healthy pregnancy. Parents have the choice to follow or not these “expert” recommendations to avoid one of the leading causes of unhealthy babies, low-birth weight (Cardiff University, 2016) Understanding various factors in pregnancies could help prevent such a case to occur and lead to a decrease in such event.

## Key Findings

In the external research done previous to working with our data we found that mother's age, smoking, drinking alcohol, little access to health care and socio-economic conditions contributed to an unhealthy baby. Our data does not always follow common trends. An example was that women and men who had completed their high-school or college degree tended to smoke and drink more heavily than those with incomplete education. In our external research we found that the higher the education level of individuals, the lower percentage of the population smokes or drinks regularly. Another finding was that there wasn't a relationship between the mother's and father's age meaning that our sample contained mixed aged group relationships. This is interesting to analyze as there are examples in the sample where mother is 20 years older or younger. Most of the research done showed that mothers were the main contributors to the health of the baby, but if the father is above the age of 35, there can also be some health risks involved in pregnancy (Nancy E. Reichman, 2006)

Our data consists of 196 women and men whose average age was around 40. From the standpoint of our data and external research we can focus our problem in the age range of 30-60. These are couples who are older, most are educated with either a high school, college or higher education degrees that account for 52% of our data. We observed that 68% of couples are visiting their doctors with more frequency than the presumed trimester schedule of visits. This shows that most of our observations are concerned about their pregnancy. The data shows a need for continued care as 57% of the couples analyzed are older than 35 and reported to have drank or smoked regularly pre-pregnancy. Surprisingly, only 8% of our data showed signs of low birth rate, most likely due to biological factors or the continuing of their risky behaviors during the gestation period. With the data collected now we can't affirm if they continued smoking and drinking during pregnancy. Research from the American Pregnancy Organization ([americanpregnancy.org](http://americanpregnancy.org), 2017) shows that 12-20% of women in America continue smoking during pregnancy, meaning there is the possibility of those observations having violated the doctor's recommendation of healthy lifestyle. This information supports our analysis as we found that smoking

during pregnancy is a lead cause of low birth weight. Since most of our data provided information on their habits, and only 8% of the babies were born with low-birth weight, we can only assume that from the doctor consultations the mother attended, the risky habits were changed for the sake of the fetus and child-to-be health.

## Recommendation

Considering these points, our recommendation follows a series of outreach to women and men in the United States. Since we are looking at a sample size where a majority has a high education, we want to work with insurance companies who have noticed increase in family spending in hospitals due to pre and post pregnancies. Insurance companies should be able to connect with families through various media outlets such as TV, radio, e-mail where they can provide quick educational tips on how to prevent low-birth weight in pregnancies. Insurances would be notified in several ways maybe previous or during pregnancy due to increase doctor visits, or changes in their original plans. In the cases where the family is from a low-income, Federal Medicaid or the Affordable Care Act would be the only option to support these costs. The government should be responsible for analyzing cities, and states with the highest indexes of low birth rate and focusing advertisement on educating the population. Under the Affordable Care Act there are certain restrictions to applying for coverage. Educating the public in the requirements could lead to an increase in doctor supervision and further improvement in treating cases where there might be a troubled pregnancy.

Cigarette companies and alcohol companies should be interested in avoiding bad publicity with being a factor in the cause of low-birth weight. In countries around Europe and Latin America both industries have allowed a direct approach of labeling their products with the “No smoking during pregnancy” (Gholam Reza Heydari, 2011) slogans to separate themselves from the problem. This approach should be implemented in the United States to continue the raising awareness of the consequences specifically to

pregnancy. If alcohol companies were to follow, this would be a perfect match in educating the public and hopefully increasing the awareness of risks associated with these vices during pregnancies.

At the end of the day these recommendations come at a high cost to companies, families and government, but the highest cost to pay is raising a child with disability.

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