

# Health Insurance Literacy and Provider Help

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## 1 Health Insurance Literacy

Health insurance literacy is the ability to navigate through the health insurance marketplace, make educated policy purchasing decisions, and understand to use one's own policy benefits. In a health insurance literacy review by Kim et al (2013), previous research has found that individuals who have low levels of health insurance literacy have a higher tendency to avoid seeking health insurance coverage, avoid medical care, as well as having difficulty understanding their own purchased policy plan and using their benefits. It was indicated that a lack of clarity with the health information that is being provided to individuals is an issue, as well as the level of difficulty of accessing insurance information has been noted to be another issue for people to become literate on health insurance. Low levels of health insurance literacy are not limited to those who do not have insurance coverage, it is also prevalent issue with individuals who do have existing policies. When individuals are unable to understand their policy and use their benefits, what tends to happen is that these people then avoid to seek medical care for their needs.

The health insurance system itself is the curator of the insurance information that individuals need to be up-to-date on and literate of, thus one must interact with this system in order to gain literacy. One of the ways of which individuals can interact with the health insurance system and access information is in the way of calling insurance providers. Insurance providers are given the task to help their purchaser understand their policy benefits and what they are entitled to, as well as what is excluded from their insurance plan. Since previous literature has noted that individuals tend to have low levels of literacy and have difficult understanding the complexity of insurance information, it calls into question the quality of the health insurance information purchasers and policy holders are receiving from their providers.

## 2 Medical Debt

When discussing health insurance coverage, it is also important to talk about medical debt and how it is connected to health insurance literacy. Medical debt is intertwined with health insurance coverage, or for better words, lack of coverage. This lack of coverage is due to either not have an existing insurance policy, or when individuals are unable to understand the benefits they are entitled to. In the United States, medical debt is a prevent issue, where it is one of the biggest reason why people file for bankruptcy. In recent statistics, it was found that 66.5 percent of all bankruptcies were tied to medical care (Himmelstein et al, 2019). It is also not an isolated issue for those who don't have insurance coverage, it is also a huge problem for those who have insurance as well. It was found that 1 in 5 American's with health insurance coverage are paying for medical debt, and 60 percent of those insured will use up most to all their savings (New Kaiser/New York Times Survey, 2016).

From previous research, it appears that when people are unable to make educated decisions with their health insurance in regards to their medical needs, the consequence that results is numerous out-of-pocket costs and medical debt.

## 3 Research Questions

The summary of the previous literature on health insurance literacy and medical debt then lead to the questions of this reproducible research project. It's important to note that these questions are also being used in other research proposals that I plan on investigating.

- Question 1: How does the health insurance system impact an individuals ability to become health insurance literate?
- Question 2: Does differences in education level impacts an individual's ability to access health insurance information?

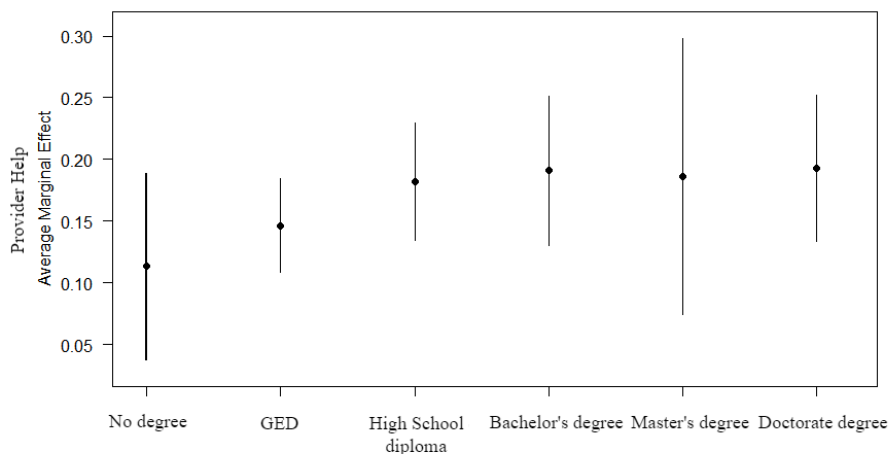
## 4 Methods and Results

The variables were cleaned and renamed using the statistical program Stata before being converted to a workable file in Rstudio for continued analysis. The Rmarkdown file itself includes the more detailed information on the statistical analyses and codes that were performed for this project.

Statistic	Mean	St. Dev.	Min	Max
age	36.858	23.384	0	99
sex	1.523	0.499	1	2
marstat	21.000	19.557	0	99
hispyn	1.324	0.468	1	2
hideg	47.727	31.236	10	99
povcat	3.338	1.486	1	5
usualpl	1.908	1.155	0	9
uscprchoice	2.804	2.192	0	9
cancerev	0.811	0.614	0	9
ertotvis	0.197	0.604	0	13
cancer1	0.089	0.285	0.000	1.000
provhelp	3.399	0.931	1.000	4.000
marital	27.383	17.943	10.000	50.000
medplace	1.775	0.418	1.000	2.000
highdeg	30.376	13.611	10.000	53.000

Number of observations = 34655

Here displayed is the descriptive table for this project with their respective means, standard deviation, and minimum and maximum values. These are the variables that were chosen for this analysis are as followed: age, sex, marital status (married, widowed, divorced, separated, never married), Hispanic ethnicity, poverty, has usual place for medical care (usualpl), and medical provider helping with choices of treatment (uscprchoice). The rest of the variable present on the descriptive table are the uncleaned variables.



The marginsplot displayed here is predicting the likelihood of receiving provider help by levels of education. The plot shows that for the highest level of education completed that provider help was more prevalent than those with lower levels of education. For those who had a high school diploma, bachelor's degree, Masters Degree, or Doctorates degree, that they had similar levels of provider help. No degree had the lowest predicted probability of receiving provider help, followed by those who had a GED. This can possibly elude to that those with higher levels of education receive more provider help, and may have higher health insurance literacy levels than those who do not have the same level of educational attainment

## 5 References

- Himmelstein, D. U., Thorne, D., Woolhandler, S. 2011. Medical Bankruptcy in Massachusetts: Has Health Reform Made a Difference? *American Journal of Medicine*, 124(3), 224-228.
- Kim, J., Braun, B., Williams, A. D. 2013. Understanding Health Insurance Literacy: A Literature Review. *Family Consumer Sciences Research Journal*, 42(1), 313.
- Palosky, C. Singh, R. 2016. New Kaiser/New York times survey finds one in five working-age Americans with health insurance report problems paying medical bills Kaiser Family Foundation. Retrieved from <https://www.kff.org>.