

# How Losing Your Job Might Impact Your Health

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## Abstract

Using data from the Medical Expenditure Panel Survey, the impact of job loss on healthcare utilization is evaluated. Employment is often tied to insurance and the economic theories about how job loss might impact healthcare utilization. The major conclusion from this study is that job loss seems to increase utilization of health care through its intermediate impact on worsening health outcomes. This is an intriguing finding especially since an initial hypothesis was that job loss leads to negative health outcomes through the mechanism of loss of insurance.

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## Introduction

Two issues which lie at the forefront of Americans' minds are unemployment and health care. With the rising costs of medical care in the United States, many Americans seek jobs for the sole purpose of obtaining health insurance. Many also report wanting but not being able to switch jobs due to insurance concerns (Holahan & Garrett, 2009). Over the course of the past decade, the seasonally adjusted unemployment rate soared from 3.8 percent in April 2000 to 9.0 percent in October 2011 (Dresner, 2012). In general, health outcomes have been shown to deteriorate in people who lose their jobs and improve in people who become employed. Increased divorce (South, 1985), depression (Montgomery et al., 1999), crime (Raphael & Winter-Ebmer, 2001), homelessness (Bassuk, 1984), and physical and mental illnesses (Kessler et al., 1988) rates all are linked to

rising unemployment on a macro level. The increased stress and anxiety levels among unemployed people have also been carefully studied (Smári, 2002). Health is important to everyone and can have enormous positive or negative consequences regarding performance of daily activities and general enjoyment of life.

The profound importance and implications of unemployment and health care serve as motivation for this study regarding the effects of job loss on health care utilization, a plausible intermediate between job loss and health outcomes. Job loss can either directly impact health care utilization or indirectly influence it through changes in health outcomes. Studying the impact of job loss on health care utilization takes on an even greater significance given the current healthcare debate and general economic climate of the United States today where

insurance status is, more so than other places in the world, linked directly to employment.

Many people believe that the main impact of job loss, relating to utilization of health care, is the loss of health insurance coverage which leads to less access to affordable health care. There is a relationship between the proportion of the population with health insurance and the unemployment rate, with approximately 55 percent of Americans acquiring their health insurance through their employer in 2010 (Cawley et al., 2011). In this view, it is easy to think of job loss as only influencing health care utilization through loss of health insurance. However, there are recent studies, like Driscoll and Woolhandler (2012), that conclude unemployed people suffer worse health outcomes than employed individuals even when insurance coverage is considered. This suggests that job loss has its own distinct and separate effect from insurance and this notion also serves as motivation for our study which is focusing on health care utilization instead of health outcomes.

Ultimately, both the sign and magnitude of the effect of losing one's job on utilization of health care services have profound policy implications regarding macro-level employment, unemployment benefits, and health outcomes. In this paper, general health care utilization will be dissected into several distinct categories (e.g., preventive, elective, and emergency care) that might better enable us to determine how job loss impacts health care utilization.

## Theory

In the 1970s, Michael Grossman (1972) wrote about health care demand. One of his more influential ideas is that health is both a consumption and an investment good and therefore people are both producers and consumers of health. As a consumption good, health yields direct utility and, as an investment good, health is like capital that needs to be invested in so that it does not depreciate. Health would indirectly yield higher utility as an investment good through increased productivity, higher wages, and fewer days missed from work. People choose whether or not to invest in health (e.g. eating healthy and exercising) based on trade-off calculations between available resources devoted in the present to investment in health and expected future benefits of the investment. Just like any other investment, many people are unfortunately limited in their resources and would be unable to invest in healthy foods or exercise—even if they would otherwise desire to—because of constraints to time or financial resources.

Thinking of health care as a consumption good, job loss could lead to a negative income effect that causes each newly unemployed individual to consume less health care in every period. There is also a substitution effect that would induce an increase in health care consumption. When one becomes unemployed, the opportunity cost of visiting a doctor, or in another way consuming health care, decreases since there is now more leisure time and no forsaken wages to be considered in one's calculation of optimal leisure hours. Thus, the theory

regarding the directional effect of job loss on health care as a consumption good is ambiguous.

Next, it is important to consider health care as an investment good. It would not necessarily be expected for investment considerations to differ in response to a change in permanent income since the cost and-benefit analysis of whether it makes sense to invest in health remains the same even with negative shock to income. Yet, perhaps the negative income shock of job loss results in the individual becoming credit-constrained and thus unable to invest in health, even though he or she would ideally want to invest based on rational cost-benefit analysis of current investment in health. The substitution effect of job loss, as suggested above, would tend to increase investment in health care insofar as the opportunity cost of investing in health decreases in terms of more leisure time to visit the doctor (i.e., to invest in health) or engage in healthy behaviors. Investing more in health can bolster one's productivity for instance so that one can better appeal to job interviewers, something which is all the more so important when seeking employment. Thus, the theory would suggest an increase in health care utilization as a result of a job loss unless one becomes credit-constrained and consequently might reduce investment in health.

Outside of the scope of the Grossman Model of health care demand, two other theoretical mechanisms through which job loss impacts health care utilization are suggested. The first mechanism is merely that job loss does not have any distinct effects

outside of its relation to insurance loss. In this view, insurance coverage really captures the entire story of changes in health care utilization following a loss of employment. This theory would simply imply a reduction of health care utilization due to health care becoming costlier due to loss of insurance. The second mechanism is that job loss causes one to become sicker through the inducement of more stress and anxiety, leading to a greater likelihood of sickness and deleterious health conditions like heart attacks, due to becoming unemployed. Here, health outcomes precede and actually trigger differences in health care utilization as opposed to all the previous theories, which worked under the impression that job loss affected health outcomes through differences in health care utilization. This last theory implies an increase in health care consumption, particularly emergency care, as a result of worsening health outcomes.

## Discussion

The overall picture regarding our general weighted health care utilization variable is that job loss has both an economic and practical significance in its impact on health care utilization apart from insurance. Job loss tends to increase the utilization of general health care and this effect is most pronounced for people over the age of 30 (Dresner, 2012). Perhaps the reason that there is a more significant effect of job loss on middle age and old age individuals is that younger people are better able to overcome the impacts of job loss. A younger person can spread his income loss over a greater time

period than one who is older and job loss might not physiologically impact younger people as much as it impacts older individuals, who are sicker at baseline.

In order to tease out health care as a consumption good, orthodontist visits were explored in the data, and the regression results fail to provide any clear picture. The overall job loss coefficients are highly insignificant in our models even controlling for length of uninsurance, and only the job loss coefficient for young people is found to be significant and negative. One may suggest that the significant finding of a negative job loss coefficient for ages 17-30 implies that job loss leads younger people to reduce their utilization of health care as a consumption good. But, the fact that the job loss coefficient even for young age people is insignificant in the fixed effects regression seems to show that job loss does not significantly, either from an economic or practical standpoint, impact health as a consumption good. Perhaps the reason there was not high significance with respect to orthodontist visits is that the income and substitution effects counter each other and might ultimately balance out—loss of income leads to lower consumption and the lower opportunity cost to visit the doctor when unemployed would tend to increase consumption. Or, perhaps orthodontist visits are not that good a proxy for elective or cosmetic surgery.

To test this theory about health as an investment good, preventive care variables were explored and one example was found in the form of dental visits. The insurance

mechanism seems to play a major role here as the job loss coefficients are significant and negative until insurance is controlled for in our regressions. From that point onwards, only length of uninsurance remained significant throughout the different regression specifications. If an individual has lost his job and keeps insurance, the price of the doctor visits remains the same as it was when he had a job. The opportunity cost of visiting a doctor is lower once one loses one's job, but this does not appear to play a significant role in one's behavior here. Thus, it appears that insurance changes the relative price of doctor visits and if one loses insurance for longer periods of time, there is a longer period of time in which utilization of health services remains more expensive. This causes a rational agent to reduce utilization. This also fits in nicely with the cash-constrained theory. One's optimal health investment decision probably does not change with job loss and thus the main reason to still reduce investment in health is if one is cash constrained. Or, perhaps the picture that emerges is that the income effect of job loss dominates the substitution effect regarding health as an investment good, resulting in an insignificant job loss coefficient because, the idea goes, there is no significant change in investment in health.

Lastly, emergency room visits can be explored as a proxy for non-elective care. There seems to be a good amount of evidence for our theory that job loss impacts health care utilization (e.g., emergency room visits) indirectly through adverse effects on health outcomes of individuals. The fixed-effects

regression reduces the magnitude and takes away significance from the young age group. Still, the job loss coefficient for older people remains significant and a similar magnitude to the corresponding ordinary least squares regression. Thus, the data suggests that older people are more susceptible to the negative health consequences of job loss, which can be explained by worse health than younger counterparts, harder time finding jobs, and reduced ability to dampen the negative income effect of job loss due to fewer periods left to spread the reduction in consumption over (Dresner, 2012).

### Conclusion

In conclusion, data were used from the Medical Expenditure Panel Survey to evaluate multiple theories regarding how job loss might impact one's health either directly or through loss of insurance that is often tied to one's job. The data were evaluated both looking at overall health care utilization and also split up the data to specifically address elective care, non-elective care, and preventive care and how job loss impacts each of these variables. It was interesting to note that job loss tends to increase the utilization of overall healthcare and this effect is most prominent for people over the age of 30. It was also noted that job loss might lead younger people to reduce their utilization of elective health care or keep it the same. Additionally, it was suggested that insurance is the imperative factor in use of preventive care after losing a job. Lastly, it was suggested that older people are more susceptible to the negative health

consequences of job loss through exploring the effect job loss has on non-elective medical care. These findings warrant further research into this matter. This research has direct policy ramifications and thus advocate for programs to increase the availability of jobs and also the availability of insurance, both of which we have shown to impact the health of individuals.

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