The Effect of Investment in Health Services on Income across Gender: A Panel Dataset

Zitong Xue

High School Attached to Shandong Normal University, Shandong, China
Email: 3208535078@qq.com

Abstract

In this essay, we study the effect of investment in health services on income across gender. People generally do not consider factors like insurance when researching income, instead, they consider health status or other factors. In many low and middle-income countries, self-pay costs have dominated health care financing. This direct payment approach is inefficient and inequitable. Many families will face financial disaster or bankruptcy because they cannot afford to pay for medical care. About 44 million families in the world are facing catastrophic expenses, and about 2500 families are struggling because of direct medical payments. This means that it is important to access health care with quality assurance, which keeps people from being financially at risk due to costly medical services. This essay will examine the influence of investment in wellness insurance on income, in addition, impact differs between genders.

Keywords

Income Factors, Health Insurances, Gender Differences

1. Introduction

There are many factors that can affect people's income, such as education, work experience and so on. A higher degree may not necessarily lead to a higher income, but it can lead to a better ability to work and be a fish out of water in the workplace. In addition, the longer you work, the more you contribute to the company, so you get a higher income. Investment in health services is also a factor in income, as people who love fitness are better able to adapt to overtime work due to their better physical power, therefore their income is boosted.

Due to historical legacies, men generally earn more income than women in China. Even with social progress, gender still gives rise to the income gap. This

paper studies the differences in income caused by health service investment across genders.

Most studies have analyzed the link between income and economic inequality, and wellness insurance is not included in the measurement of income. Understanding that it is critical to study the affect of the relationship between the health insurance and income, but there are no studies that analyse the differences in income across the gender as affected by health insurance, so this essay will examine the relationship between health insurance and income across gender. Firstly the paper will analyse the relationship between investment in health insurance and income, as well as the relationship between other health-related factors and income. Secondly, the paper will study the relationship between non-health related factors and income, such as education. The wealth of families and individuals is related to their desire and ability to afford the health insurance, and at the household and individual level, lower educated level people are willing to invest less in health insurance than higher educated level people. Finally the paper will examine the differences in investment in health insurance as well as income among the two genders.

Health insurance and other public benefits do not typically include in the measurement of earnings and analysis of disparities, so it is essential to examine the connection between health insurance and revenues. Health insurance affects household income in two ways. It improves health and reduces health care cost uncertainty (Lu, Wang, & Wei, 2020). Health insurance reduces health care costs, which can increase the use of outpatient and inpatient care. Health insurance can therefore improve health outcomes. Restoring and improving health has a "strengthening" and "stabilizing" effect on incomes. The "reinforcing" effect refers to the increase in labor efficiency and real labor supply that results from improved health. The stabilizing effect, in turn, refers to the reduction in the use of health services as a result of improved health, which reduces the direct and indirect costs of illness and hence the loss of income. Health insurance, in turn, reduces the uncertainty associated with health care expenditure and thus increases the return to households on large investments.

Poor health can affect occupational mobility and may lead to the choice of less prestigious jobs, which may be associated with longer periods of health, and less prestigious jobs, which may bring lower earnings (Xie, Poon, Wu, Jian, & Chan, 2015). So health status and occupation are the factors studied in this paper.

2. Literature Review

Recent evidence suggests that the health insurance employer provided has a potentially impact on income inequality (Kaestner & Lubotsky, 2016). Employer provided insurance is a common phenomenon among the high-income households. About 80 percent of people in the three ten digits of high income have employer-provided coverage, while only 10 to 30 percent of people in the three tens digits of bottom income have this type of insurance. Health benefits for

low-income families represent 16 percent of national health spending. In 2011, medical benefits for a family of three people averaged 9125 dollar, it is about 80 percent of the bottom 80 percent of the average household income at that time. And health insurance for the elderly represents about 29 percent of national health expenses. As these numbers show, Medicaid has the potential to improve the well-being of low-income families greatly and reduce disparity. From 1979 to 2007, when the value of health insurance is ignored, the average income of the highest population grows 3.3 times faster than the average income of the lowest population. However, after adding the value of healthcare insurance, this value reduced to 2.0. The research concludes that citizens' need for healthcare insurance depend on few factors, especially depending on the disease risk, income and preference (e.g., degree of risk aversion) are very important. Low-income people have a higher incidence of illness, which would make them have need for health insurances stronger. On the opposite hand, lower earning earners have a lower propensity to contribute to the insurance (greater marginally consumed cost), and this will diminish their needs compared to higher income individuals. A series of recent studies have indicated that family, individual wealth or socioeconomic status is associated with readiness and ability to pay for healthcare insurance (Adebayo et al., 2015). At the household and individual levels, people with lower levels of education are more likely to be willing to pay less for universal access to health insurance than those with higher levels of education. Studies in Nigeria, India, Ghana, Mali, Senegal, Cameroon, and Burkina Faso show that young people aged 30 to 49 are more willing to pay for health insurance than older people. The second point is that men are more willing to pay for health insurance than women. In addition, geographic location has an impact. Urban citizens are more inclined to pay less compared to rural residents.

Overall, among the working-age group aged 18 to 55, income increase by 3.1 percent as each unit of educational attainment increased, and this result is very reliable. For every 1 unit increase in social experience, income increases by 0.4 percent. Compared to those in poor health, those in good health saw a 42 percent rise in income for every 1 unit rise. Compared to people in other occupations, income increased by 14.9 percent for every 1 unit increase in worker and it was very reliable. Every yuan spent on health expense and the income increased by 2.5 percent. When other factors are same, compared with male. For every 1 unit increase in female, income decreases by 11.5 percent. Between 2000 and 2006, people with free health insurance increased their income by 35 percent to 88 percent for each one unit compared to those without free health insurance. However, from 2009 to 2015, income decreased by 8.8 percent to 4.0 percent. In 2004, income increased by 40.9 percent for every yuan that people with compensation insurance had compared to those without compensation insurance. However, there is no data available for 2006 to 2015. In general, the more you spend on health insurance, the more your income increases. And men earn more than women, also, urban incomes are higher than those of rural residents.

In 2015, China established a national health insurance system. This insurance contains three projects: urban worker's foundational health insurance, novel cooperation fitness insurance, and foundational health-insurance for urban residents (Lu, Wang, & Wei, 2020). Health insurance affects income in two aspects. The first is that health insurance improves people's health by reducing the price of medical services. Labor efficiency increases and real labor supply increases. Improved health also reduces medical expenditures, which reduces direct and indirect costs of illness and increasing income.

Chile is the country with the most distinctive income allocation in the world, with the minimum percentage of citizens existing on less than $1 a day, and the highest level of education among the ten countries (Araya, Lewis, Rojas, & Fritsch, 2003). Over the forty years, all previous governments announce that education was a key factor when they were fighting against poverty. Parents have to make ensure whether their children receive the fundamental education for eight years period. As a result illiteracy is very rare among the younger generation in Chile. However, for the poor, it is difficult to have access to higher education, which not basic education. When children from poor families want to go to college, they go into huge debt. And in a university degree in the future will not have the certainty of a well-paying job.

Thanks to some policies on employment, such as the basic income guarantee, many social ills have been addressed (Tcherneva, 2003). Such as the reduction of poverty or criminal activities, and with the reduction of crime and the increase of people's income, the total demand is raised and the social environment is improved.

3. Methodology

3.1. Variables

We will study the impact on income in terms of five factors, the first and second factors of the table are years of education and social experience, the increase in years of education represents the increase in education and education. And the increase of social experience represents the increase of experience people get in the society, which is the most common indicator of income. Health status and the four types of insurance are the main factors on the research. Health status is an important research factor to measure income because a person's health status is closely related to his work, in addition, if a person is in poor health, he will also spend a lot of money on medical care and therefore his income will be lower. The five types of insurance are free health insurance, compensation insurance, cooperation insurance and other insurance. Free medical insurance means that the insured person can receive material help for interruption of income and loss of medical expenses due to an accident such as illness. Compensation insurance refers to all retired employees from state agencies, organizations, institutions and other business units that participate in social insurance are entitled to medical insurance benefits. Cooperation insurance refers to the farmer's medical mu-

tual aid and co-payment system mainly for major diseases, while other insurance refers to medical insurance other than the above three types of insurance. The last factor studied in this paper is occupation, because only five options were provided in the survey, namely technical employees, managers, office workers, farmers, workers and freelancers. Therefore, this paper can only use this as the basis for the study.

3.2. Models

This article discusses factors that may affect income, part of the variable is related to health insurance and the other part is not related to health insurance but can affect income. As can be seen from Table 1, we have the following variables, for example whether the health status is good or not, this variable is related to health. In 2000, when other factors were the same, people in good health compared to those in poor health, income rose 32.4%, the figure is quite plausible. And those people with free health insurance showed an increase in income from 2000 to 2006 compared to the people without free health insurance. However, from 2009 to 2015, income showed a decline. In addition to the above factors, this paper also examines elements of educational experience and community experience that do not relate to healthcare but affect income. When all other factors are equal, women's incomes were lower than men's incomes between 21.9 and 9 percent from 2000 to 2015. OLS is commonly used to profile the association between at least one or more individual quantity variables and the underlying variable. By using this model, we can see exactly how health insurance and non-health related factors affect the income.

The second model used is fixed effects model, we can eliminate the effects caused by unobserved but time-invariant proximate variables. The equation of this model is as below:

$$\tilde{Y}_{it} = \beta_1 \tilde{X}_{it} + \cdots + \tilde{u}_{it} \tag{1}$$

There might be some unobserved variables casting bias on our model. As we have a panel dataset here, we decide to use the Fixed effect estimator. It can be seen that the effects of year and other extraneous factors are removed. Those people with free health insurance had a 76.7% drop in income compared to those people without free health insurance, and people in good health had a 17% rise in income compared to those in poor health. These are the factors related to health insurance. And among factors unrelated to health care, income increased by 9.7% as the length of education increases 1 year. As 1 year increased in social experience, income increases by 14.7%. It can be seen that variables related to health insurance have a greater impact on income. A fixed effects model is a statistical model in which the model arguments are fixed or non-random variables.

The third model used is Interaction Effects, by using the interaction effect, we may decide the differential effectiveness of different types of health insurance that can across genders. In any research study, many variables can impact the results. Changing these variables can directly affect the results. For example, in

2000, women received 96.3% fewer benefits from free health insurance than men. And in the same year, women received 84.5% fewer retirement compensation health insurance benefits than men and women receive 85.8% less benefit from other health insurance than men. We do not know the reliability of these data, but it shows that women earn less than men no matter which type of health insurance they receive. Interaction effects occur when the effect of one variable depends on the value of another variable. Interaction effects are often found in regression models, analysis of variance, and pre-specified experiments.

4. Results

4.1. OLS Regression

As Ordinary Least Squares Regression (OLS) shows that people with free health insurance showed a steady upward trend in income from 2000 to 2006 compared to people with the same other factors but without free health insurance. However, from 2009 to 2015, income showed a fluctuating trend. Those people with compensation insurance benefits compared to those people with the same other factors but no compensation insurance benefits. From 2000 to 2006, income showed a fluctuating upward trend. From 2009 to 2015, incomes showed a fluctuating trend, with income sometimes show an increase trend and sometimes a decrease trend. Those with cooperation insurance also showed a flat upward trend in income from 2000 to 2006 and a fluctuating trend from 2009 to 2015 compared to those people with the same other factors but without cooperation insurance. Forgetting whether they had cooperation insurance compared to those people with the same other factors but no cooperation insurance showed a consistent trend of fluctuations in income from 2000 to 2015. People with other insurance showed a fluctuating upward trend in income from 2000 to 2006 and a fluctuating trend from 2009 to 2015 compared to those with the same other factors but no other insurance.

This shows that all insurance types show an upward trend from 2000 to 2006 and a fluctuating trend from 2009 to 2015. Overall, those with free health insurance had a 33.4 percent decrease in income compared to those without free health insurance, although the income trend was decrease, the value was minimal compared to other insurance. Moreover, free health insurance solves people's worries about getting sick. Some people need to sell their family assets to treat their epidemic, but free health insurance can alleviate this phenomenon. Free health insurance can ensure the quality of life of residents, as health care is a large expense in their lives. However, health insurance cannot cover cosmetic surgery of cosmetic type, otherwise the burden of the state's tax policy will become more and more serious.

From the plausibility point of view, the values for free health insurance are very plausible in 2004, 2006 and 2011, and all three values show an increase in income for people with free health insurance compared to people without free health insurance. In 2004, the figures for retirement benefits were also very reli-

able. However, there is no data from 2006 to 2015, so it is difficult to tell if compensation insurance is a good insurance option. In 2006, the data for cooperative insurance was very believable, the data for 2009 is not known to be reliable, and the data for 2015 is more plausible. While the data in 2006 presents an increase in income for those with cooperation insurance compared to those without cooperation insurance, the 2009 and 2015 data both show a downward trend. So cooperation insurance is not a good choice either. In 2006, the data for other type insurance is very credible, while in 2004 and 2011, the data is more plausible, and all three figures show an upward trend.

So I recommend that when people want to buy insurance, they can choose free health insurance (Table 1).

Table 1. OLS regression outcomes.

Variables	2000 Coef.	2000 S.E.	2004 Coef.	2004 S.E.	2006 Coef.	2006 S.E.	2009 Coef.	2009 S.E.	2011 Coef.	2011 S.E.	2015 Coef.	2015 S.E.
Education and Experience												
Education	0.029 ***	0.005	0.022 ***	0.006	0.04 ***	0.006	0.038 ***	0.005	0.034 ***	0.005	0.024 ***	0.006
Experience	0.056 ***	0.005	0.029 ***	0.006	0.023 ***	0.005	0.037 ***	0.005	0.017 ***	0.004	0.017 ***	0.005
Experience, square	−0.001 ***	0.000	0.000 ***	0.000	0.000 ***	0.000	−0.001 ***	0.000	0.000 ***	0.000	0.000 ***	0.000
Health Status												
Excellent/Good	0.324 ***	0.096	0.134 *	0.077	0.306 ***	0.075	-	-	-	-	0.492 ***	0.094
Fair	0.185 *	0.098	0.018	0.079	0.238 ***	0.078	-	-	-	-	0.373 ***	0.095
Missing	0.366 ***	0.123	−0.001	0.21	0.01	0.18	-	-	-	-	0.077	0.175
Type												
Free												
Yes	0.355	0.286	0.378 ***	0.121	0.888 ***	0.121	−0.088	0.236	0.386 ***	0.135	−0.401	0.307
Missing	-	-	-	-	-	-	-	-	-	-	-	-
Compensation												
Yes	0.373	0.284	0.409 ***	0.117	-	-	-	-	-	-	-	-
Missing	-	-	-	-	-	-	-	-	-	-	-	-
Cooperation												
Yes	0.352	0.287	0.111	0.131	0.559 ***	0.126	−0.420 *	0.237	0.034	0.138	−0.762 ***	0.314
Missing	−0.241 *	0.132	0.26 **	0.128	−0.048	0.161	0.063	0.125	−0.475 **	0.224	0.003	0.361

Continued

Other												
	Yes	0.364	0.286	0.282**	0.127	0.833***	0.131	−0.223	0.24	0.296***	0.142	−0.470	0.313
	Missing	0.365	0.311	0.263	0.192	0.519***	0.174	−0.529**	0.26	−1.349***	0.466		
Jobs												
	Technicians	0.122***	0.054	0.186***	0.050	0.215***	0.052	0.285***	0.046	0.309***	0.036	0.264***	0.041
	Manager	0.162***	0.057	0.094***	0.06	0.264***	0.062	0.317***	0.068	0.344***	0.045	0.236***	0.057
	Officers	0.075	0.063	0.14***	0.054	0.087*	0.053	0.158***	0.059	0.157***	0.04	0.165***	0.043
	Farmer	−0.744***	0.040	−0.879***	0.046	−0.599***	0.047	−0.46***	0.045	−0.399***	0.042	−0.407***	0.056
	Worker	0.089**	0.040	−0.064	0.046	0.131***	0.044	0.088**	0.043	0.148***	0.032	0.142***	0.041
	Missing	−0.645***	0.078	−0.758***	0.053	−0.839***	0.058	−0.628***	0.057	−0.548***	0.047	−0.799***	0.048
In Addition												
	Female	−0.09***	0.028	−0.189***	0.030	−0.219***	0.029	−0.121**	0.028	−0.135***	0.024	−0.128***	0.028
	Urban	0.077***	0.032	0.134***	0.032	0.2***	0.032	0.08***	0.030	0.067***	0.025	0.095***	0.031
Constant		7.585***	0.31	8.539***	0.174	7.833***	0.176	9.164***	0.254	9.153***	0.163	9.919***	0.348
Observations		5267		5380		5076		5242		6696		5675	
R		0.256		*0.27*		0.293		0.212		0.223		0.246	
Adjusted R-square		0.256		0.27		0.293		0.212		0.223		0.246	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

4.2. Fixed Effect Model

Since the results with Ordinary Squares Regression (OLS) include a range of other factors that can affect income, the paper also uses fixed effects model. The method controls for variables that are not or cannot be measured.

The data shows that people with free health insurance earned 76.7 percent less income than those people without free health insurance. Those who did not know if they had free health insurance their income increased by 23.6 percent compared to those who did not have free health insurance. Those with cooperation insurance received 78.8 percent less income compared to those without cooperation insurance, and those who did not know if they had cooperation insurance received 25.9 percent less income compared to those without cooperation insurance. The fund principle of cooperative insurance is as follows: each farmer pays 10 yuan per year for cooperative medical fee on a household basis;

according to the number of participants, the central government subsidizes 20 yuan per person per year and the provincial government subsidizes 20 yuan per person per year, totaling 40 yuan. If farmers do not pay, the state will not subsidize. The county's new rural cooperative medical system provides for a unified household-based participation within the time frame set by the government, people cannot applied for if they exceed more than the specified time limit , and they can only wait until the next year to participate. I speculate that people with cooperative insurance get less income than people without cooperative insurance for the following reasons, the characteristics of cooperative insurance is to solve the problem of poverty and return to poverty due to illness among farmers, so the medical object is farmers. According to a report released by the Chinese Academy of Social Sciences, the per capita disposable income of Chinese farmers reaches 20,600 yuan in 2022. And in China, the average cost of medical treatment for serious diseases is greater than 100,000 yuan. Therefore farmers can't afford to pay for medical treatment of major diseases, the cooperation insurance does not reimburse the cost of organ transplants. For example, a kidney transplant costs about 40,000 yuan in China, which is undoubtedly a huge expense for a ordinary peasant family. For those who had other insurance, their income dropped by 75.3 percent compared to those who had no other insurance.

It can also be seen from the occupation, technical staff and managers are equal to other industry personnel, compared to the trend of rising income. But farmers and people without occupations receive less income compared to people in other professions.

People with good health compared to those with poor health, their income increased by 17 percent. People with average health compared to those with poor health, income increased by 11.4 percent, and people who were unaware of their health increased their income by 30.1 percent compared to those with poor health, which shows the importance of good health to income. In the long run, health plays a key determinant in income, while short-term income declines may have a negative impact on health (Benzeval & Judge, 2001).

In terms of years of education and social experience, people's income rises by 9.7 percent as each year of education, and rises by 14.7 percent for each year of social experience, the data is very reliable. In the long term, strategies that promoting education and creating jobs for people are important for income (Benzeval & Judge, 2001) (Table 2).

Table 2. Fixed effect estimation.

Variables	Year 2000-2015		Variables	Continue	
	Coef.	S.E.		Coef.	S.E.
Education and Experience			**Occupation**		
Education	0.097 ***	0.015	Technical Worker	0.041	0.092

Continued

Experience	0.147 ***	0.018	Manager	0.181 *	0.097
Experience, square	−0.001 ***	0.000	Office Staff	0.043	0.073
Health Status			Farmer	−0.308 ***	0.062
Excellent/Good	0.17	0.156	Worker	0.067	0.059
Fair	0.114	0.159	Missing (Occupation)	−0.661 ***	0.071
Missing (Health Status)	0.301 *	0.164	**In Addition**		
Insurance			Female	-	-
Free					
Yes	−0.767 **	0.345	Urban	-	-
Missing	0.236	0.213	**Constant**	6.306 ***	0.636
Compensation					
Yes	-	-	**Observations**	13,239	
Missing	-	-			
Cooperation			**R-squared**	0.076	
Yes	−0.788 *	0.346			
Missing	−0.259	0.255	**Adjusted R^2**	0.0761	
Other					
Yes	−0.753 **	0.345			
Missing	-	-			

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

4.3. Interaction Effect Model

The third model used in the paper is interaction, in this model, when all other factors are equal, women with free health insurance have 96.3 percent lower income in 2000 compared to men. But in 2015, women's earnings rose 27.2 percent compared to men's. Overall, women received 3.1 percent more benefits than men. In terms of compensation insurances, women earned 84.5 percent less than men in 2000 and 0.6 percent less in 2004, overall, women earned 1 percent more than men. From a cooperation insurance perspective, in 2000, women earned 99.3 percent less compared to men, which is certainly a huge number, but

from 2004 to 2015, earnings showed a flat upward trend. Overall, women's earnings rose by 12.5 percent compared to men's. In terms of other insurance, in 2000, women received 85.5 percent less income than men, but income also showed a gentle upward trend from 2004 to 2015, and overall, women's income increased by 12.2 percent compared to men's.

In general, when all other factors being equal, even though women's income rises by 1 to 3 percent over men's, painless childbirth is not covered by health insurance, as can be seen in the "Guidance on Further Improving and Implementing Active Maternity Support Measures" published by China's National Health Network. In addition, China currently imposes a 13 percent value-added tax on sanitary napkins, which is higher than the 12 percent tax on luxury goods that has been in effect in India for a year.

In addition, the price of female products is more than twice as high as the price of comparable male products. The additional tax women must pay for women's products and services in their daily lives is called the pink tax (Lafferty, 2019). Deeply ingrained prejudices have developed, which have convinced women that products with a pink tax are necessary. Today, although much of the gender discrimination has been eliminated. However, the economic gap between men and women still exists.

The OLS regression results show that those people with free health insurance show a significant trend of increasing income compared to those people without free health insurance, and even though there is a decreasing trend from 2009 to 2015, the trend is smaller than the decreasing trend of other insurance. The fixed effect model data shows that for each additional year of social experience, earnings increase by 14.7 percent, and this result is very plausible. So this result shows that the accumulation of social experience has an impact on income. In Interaction Effect result, it can be seen that women earn more than men regardless of the type of insurance they invest in. This may be because women receive more from their investment in education than men (Liu, Yang, & Wang, 2019). And the increase in years of education has led to higher earnings for women (Table 3).

Table 3. Interaction effect.

Coefficients	2000		2004		2006		2009		2011		2015	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Insurance Types												
Free * Female	−0.963 **	0.490	0.018	0.215	0.434 ***	0.089	0.439	0.413	−0.479 ***	0.131	0.272	0.61
Compensation * Female	−0.845 *	0.492	−0.006	0.205	–	–	–	–	–	–	–	–
Cooperation * Female	−0.993 **	0.49	0.124	0.233	0.272 **	0.121	0.475	0.419	−0.46 ***	0.145	0.417	0.622
Other * Female	−0.858 *	0.483	0.038	0.227	0.487 ***	0.134	0.451	0.422	−0.517 ***	0.153	0.371	0.624

Continued

Constant	7.254 ***	0.378	8.494 ***	0.216	8.05 ***	0.142	9.393 ***	0.192	8.796 ***	0.111	10.105 ***	0.561
Observations	5267		5380		5076		5242		6696		5675	
R-squared	0.257		0.271		0.295		0.212		0.224		0.247	
Adjusted R-square	0.257		0.271		0.295		0.212		0.224		0.247	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

5. Conclusion

Overall, women with insurance have higher incomes compared to men who have the same insurance. In addition, from the data, it is more recommended that people choose free health insurance. This is because free health insurance has a higher rise in income than other insurance. In terms of non-medical factors, the higher the social experience and education people have, they will get the higher their income. Even if China's health insurance covers incompletely now, it is important in the long run to include supplies such as sanitary napkins in health insurance. In addition, the government needs to provide access to education, which is also an important factor in income.

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Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

Adebayo, E. F., Uthman, O. A., Wiysonge, C. S., Stern, E. A., Lamont, K. T., & Ataguba, J. E. (2015). A Systematic Review of Factors That Affect Uptake of Community-Based Health Insurance in Low-Income and Middle-Income Countries. *BMC Health Services Research, 15*, Article No. 543. https://doi.org/10.1186/s12913-015-1179-3

Araya, R., Lewis, G., Rojas, G., & Fritsch, R. (2003). Education and Income: Which Is More Important for Mental Health? *Journal of Epidemiology & Community Health, 57*, 501-505. https://doi.org/10.1136/jech.57.7.501

Benzeval, M., & Judge, K. (2001). Income and Health: The Time Dimension. *Social Science & Medicine, 52*, 1371-1390. https://doi.org/10.1016/S0277-9536(00)00244-6

Kaestner, R., & Lubotsky, D. (2016). Health Insurance and Income Inequality. *Journal of*

Economic Perspectives, 30, 53-78. https://doi.org/10.1257/jep.30.2.53

Lafferty, M. (2019). The Pink Tax: The Persistence of Gender Price Disparity. *Midwest Journal of Undergraduate Research, 11*, 56-72.

Liu, T., Yang, E., & Wang, Z. L. (2019) Income Inequality: How Do Racial and Gender Differences Influence the Incomes in US. *Journal of Human Resource and Sustainability Studies, 7*, 233-243. https://doi.org/10.4236/jhrss.2019.72014

Lu, X. J., Wang, Q., & Wei, D. S. (2020). Do Health Insurance Schemes Heterogeneously Affect Income and Income Distribution? Evidence from Chinese Agricultural Migrants Survey. *International Journal of Environmental Research and Public Health, 17*, 3079. https://doi.org/10.3390/ijerph17093079

Tcherneva, P. (2003). Job or Income Guarantee? *Center for Full Employment and Price Stability*, University of Missouri-Kansas City, *WP*.

Xie, Z., Poon, A. N., Wu, Z. J., Jian, W. Y., & Chan, K. Y. (2015). Is Occupation a Good Predictor of Self-Rated Health in China? *PLOS ONE, 10*, e0125274. https://doi.org/10.1371/journal.pone.0125274