ARE MORE EDUCATED AND WEALTHIER PEOPLE MORE CARE ABOUT THEIR HEALTH?

Muhammad Hasyim Ibnu Abbas
Imam Mukhlis
Hadi Sumarson
Agus Sumanto

ABSTRACT

Covid-19 Pandemic has become the one of the world's extraordinary incidents. Because of it, more people are starting to care about their health. This study aims to analyze the sosio-economic factors affecting individual's decision in allocating the additional fund for health. The types and sources of data used in this study are primary data obtained from the Questionnaire. The population in this study is all residents of Malang City who have jobs based on BPS data in 2019 totaling 437,737 people. The number of samples used in this study is 218 people. The sampling technique used in this study is the Random Sampling Technique. The tool analysis used is Logistic Regression. The result shows that the higher the income and education level, the higher the likelihood of the people to spend more for their health. The result also show that women are more care about their health.

Keywords: Pandemic Healthcare, Income, Education

INTRODUCTION

The world is currently dealing with the covid-19 pandemic. Indonesia is one of the few countries that have been particularly hard hit by Covid-19. Even, at the end of the first semester in 2021, Indonesia had become the country with the highest number of daily deaths in the world. Based on the results of research in the field of health, the main cause of death in people with covid-19 is the presence of comorbid diseases.

Most Indonesians do not know that they have comorbid diseases that become very problematic when they are exposed to covid-19. Data from the Indonesian Central Statistics Agency states that the average per-capita expenditure per month on health costs was recorded at only IDR 31,545 in 2020 which is divided into costs for treatment, prevention, and drug purchases. If divided by urban and rural areas, the average per-capita expenditure per month on urban public health costs is IDR 39,090 per person per month, consisting of IDR 28,315 for treatment, IDR 5,968 for prevention, and IDR 4,807 for drug purchases. Furthermore, the average per-capita expenditure per month on rural public health costs is IDR 21,965 per person per month, consisting of IDR 15,796 for treatment, IDR 3,660 for prevention, and IDR 2,509 for drug purchases. From these data comes the fact that the proportion of health expenditures in Indonesian society for prevention is still very low. Most of Indonesia's public health expenses are used for medical expenses. From this it can be said that the concern of the Indonesian people for their health is still very low.

The low concern of Indonesian people for their health can be caused by various social and economic factors. Some of them are income, employment, education level, age, and so forth (Dewi, 2020; Rabbaniyah & Najib, 2019). Related to this, there are also several factors that affect people's consumption behavior. In the economic literature, it is mentioned that the factors that affect society's consumptive expenditure are disposable income, as well as other social factors in each individual's environment. Theoretically, there are three classifications of factors that influence individual consumption decisions: 1) economic factors such as income, interest rates, and future expectations; 2) Social factors such as the level of education, the number of family dependents, and so on; and 3) Other factors.

Several studies have been conducted related to social and economic factors that affect individual consumption for both general consumption and consumption for health. Economic factors used include Income, Education, Gender, Age, MaritalStatus, EmploymentStatus, Number of Family Members, and so on (Wahyuni 2011; Adiana & Karmini,2012; Li et al., 2012; Etavianti et.al., 2014; Wuryandari,2015; Zin & Nabilah,2015; Ramya & Ali, 2016; Muzindutsi, 2018; Wang, 2020).

Research on socio-economic factors that affect people's consumption is widely conducted, but research focusing on people's consumption behavior for the health sector is still very rare. The novelty of the study is that it focuses on people's concern for their health. Health economics which is a branch of economics mentioned about the demand for health. In the economics of health, health is an item needed to obtain "healthy" satisfaction, so the decision of the community to consume 'health' goods is also Influenced by various factors just like their decision to consume other goods.

Based on the background described above, this study was conducted with the aim of knowing what factors influence the decision of the community in Malang City to increase their expenditure for health in the new normal. This research is expected to be one of the references to policy formulation from local and regional governments, especially Malang City in tackling the problem of Health Crisis in the future.

LITERATURE REVIEW

Health Economics

Health economics is the application of economics in health efforts and factors that affect health to achieve optimal health degrees. Health economics is the study of the demand and supply of the resources involved in health care and the impact of health care on society. Health economics is an application of economics in the field of health. In general, the health economy will concentrate on the health industry. Health economics is the application of economic theories, concepts and techniques to the health sector. WHO defines health economics as the application of economics to the quantification of these resources to achieve health

development goals, as well as quantifying the impact of preventive, curative, and rehabilitative efforts on individual and national productivity? Thus, it can be concluded that health economics is the application of economics in health efforts to achieve optimal health degrees as well as science that studies the supply and demand of health care resources and the impact of health care resources on the population.

Health development is the main investment for human resource development in Indonesia. Health development is basically an effort to increase awareness, willpower, and the ability of everyone to be able to live a healthy life to achieve the highest degree of health. To realize this, it is necessary to plan systematic, directed, integrated and comprehensive health development, and it requires the involvement of various sectors and components of the natural nation implementation.

Health economics is needed and needs to be studied, because there is a relationship between health and the economy. Health affects economic conditions, and vice versa the economy affects health. So better health care will benefit individuals and society as a whole if it brings better health. The health status of the population is good productivity, increases per capita income, increases the country's economic growth.

Consumption and Health

Economics is a social science that deals with individual decisions in the gratification of their unlimited needs but is faced with limited resources. Decisions taken by an individual are certainly influenced by the factors or social and economic conditions he or she faces. People with different levels of wealth certainly have different decisions in the gratification of their needs or consumption.

During the Covid-19 Pandemic, individual decisions in order to make preventive efforts to prevent disease are also definitely influenced by socio-economic conditions. Facts on the ground show that indeed some people have begun to care about the health aspects in spending or consuming goods. However, not a few people are still less concerned with the health aspect despite being in the Covid-19 period. So that the consumption of individuals or even their households is still widely allocated for food consumption.

Consumption is very important in the studies of economics. Household consumption is specifically discussed in microeconomics in the chapter on utility theory. Household behavior in doing consumption comes from the maximalization proposition of utilities that are faced with budget constraints. In microeconomics literature, an individual's budget constraints will show a combination of various items that he can buy by looking at his income and the price of those items. The individual will always strive to optimize his consumption at one meeting point between the indifference curve and the budget line he has.

In the economic literature, it is mentioned that the factors that influence consumer expenditure in society are disposable income, as well as other social factors in each individual environment (Khan et al., 2017). Theoretically, there are three classifications of factors that influence individual consumption decisions: 1) economic factors such as income, interest rates, and future expectations; 2) Social factors such as the level of education, the number of family dependents, and so on; and 3) Other factors.

Analysis of economic behavior is also often done using household cross section data within a certain period of time. The level and structure of consumption is not only affected by increased revenues, but also tastes and also changes in the price of goods. Earnest Engel in 1857 in Belgium conducted an empirical study of 200 working households consisting of the lower, middle, and upper-income classification. From his study obtained the conclusion that the higher the level of household income, the proportion of income used to buy primary items such as food tends to decrease. Conversely, the higher the economic class of households, the proportion of income spent on luxury goods will increase (Ahmad et al., 2015; Colen et al., 2018). The Economic Literature mentions that the term consumption not only refers to food and drink, but covers a broader range of goods. and services including the health sector.

RESEARCH METHOD

The type and source of data used in this study is primary data obtained from survey results using questionnaire either directly or using online questionnaire forms. The population in this study is the entire population of Malang City who have jobs based on BPS data in 2019 amounted to 437,737 people. The number of samples used in the study was 218. The sampling technique used in this study is the Random Sampling technique.

As is well known from the population and samples used, the study used cross section data. The research variables used in this study consist of Dependent Variables and Independent Variables. Table 3.2 below briefly describes the variables used in this study:

Table 1. Variables

No	Variable Name	Information	Variable Types
1	There is an additional allocation of expenditures for health (D_HEX)	1 if "Yes/There", 0 if "No/None"	Dependent Variables
2	Revenue Per Month (INC)	There are 4 Categories: > 5 million, 3 - 5 million, 1 - 3 Million, < 1 Million	
	D_INC1		Independent Variables
	D_INC2	1 if >5 million, 0 if others	
	D_INC3	1 if 3 - 5 million, 0 if others	
		1 if 1 - 3 million, 0 if others	
3	Old (OLD)	Units use years.	Independent Variables

No	Variable Name	Information	Variable Types
4	Gender (D_SEX)	1 if it's a man, 0 if it's a girl	Independent Variables
5	The Last Level of Education (EDU)	There are 3 Categories: under high school (Not School / Elementary / Junior High),HighSchool, Bachelor and Above	Independent Variables
	D_EDU1	1 if Bachelor and Above, 0 if others	
	D_EDU2	1 If high school, 0 if others	
6	Family Members (FAM)	Dependents of Family Members (souls)	Independent Variables
7	Marital Status (D_MAR)	1 if "married", 0 if others	Independent Variables
8	Recipients of Government Assistance during the Covid-19 pandemic (D_SUB)	1 If "yes", 0 if "no"	Independent Variables

Based on the variables used in this study described by table 1, the analysis used is a *logit binary* regression model. The econometric model is as follows:

$$D\_HEX = a + b.D\_INC1 + b.D\_INC2 + b.D\_INC3 + b.OLD + b.D\_SEX + b.D\_EDU1 + b.D\_EDU2 + b.FAM + b.D\_MAR + D\_SUB + e$$

RESULTS AND DISCUSSION

The Respondents' Characteristic

As explained earlier, this study uses data retrieval tools in the form of questionnaires that are spread through online platform and/or in person. Based on the results of the questionnaire, the respondents who filled the most were respondents with female gender. Figure 1 showed that 54.5 percent of respondents were women, while the remaining 45.5 percent were men.
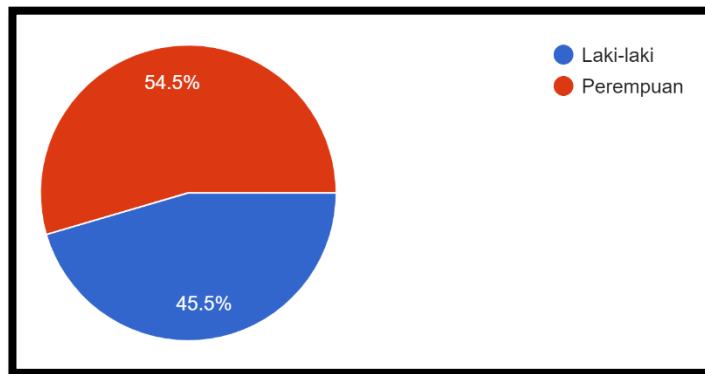

Figure 1: Percentage of Respondents by Gender

Based on their latest education, the majority of respondents have a bachelor's degree which is as much as 58.4 percent. Then 29.9 percent were respondents with the last high school education, 10.4 percent junior high school and the rest elementary school and did not finish elementary school. This is shown in Figure 2.
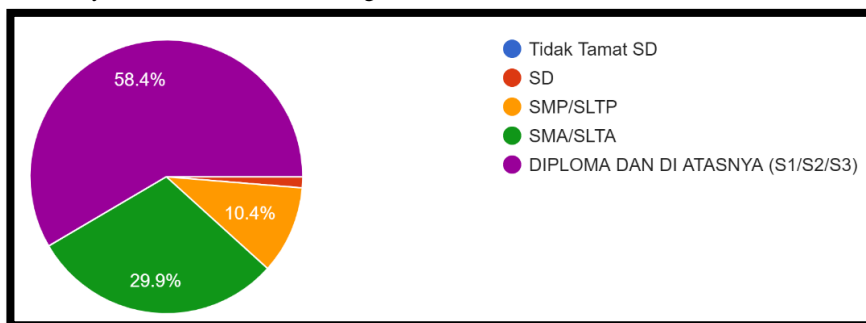

Figure 2. Percentage of Respondents Based on Recent Education

Judging from the average monthly income, figure 3 indicates that respondents who have income or take home pay above IDR 5,000,000.00 by 28 percent,15.6 percent have income in the IDR range. 3,000,000.00 – 5,000,000.00, 31.2 percent have income of IDR 1,000,000,000.00 – 3,000,000.00, and the remaining 24.7 percent income less than IDR 1,000,000.00.
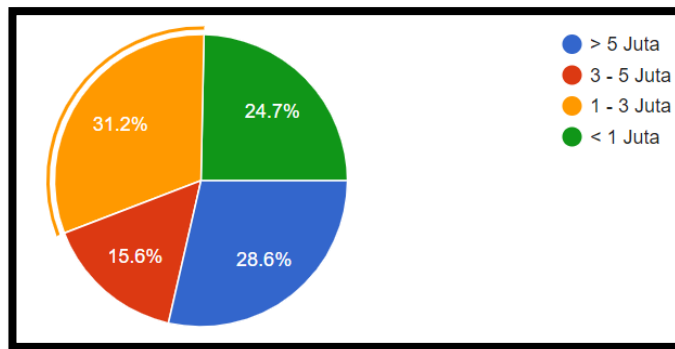

Figure 3. Percentage of Respondents by Income

The Covid-19 pandemic forced the entire community to limit community activities including in the economic field. On the other hand, society is required to still meet the needs of his life that continues to increase. This caused the Indonesian government to issue an assistance program in the framework of Covid-19 countermeasures. The assistance consists of various types such as *sembako* assistance from the ministry of social affairs, Direct Cash Assistance village funds, pre-employment cards, electricity subsidies, subsidies salaries, assistance for micro-businesses, and so on. Figure 4 showed that 68.8 percent of respondents received subsidies or transfer payments from the government.
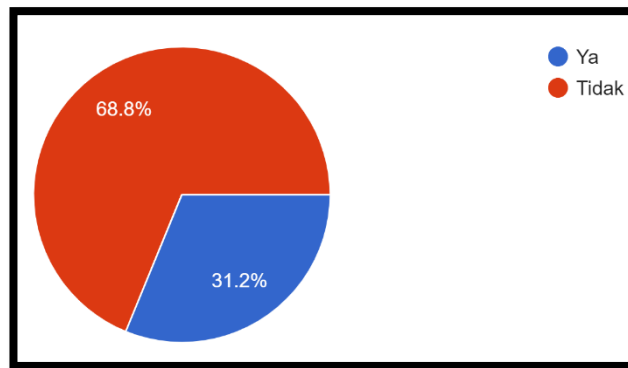

Figure 4. Percentage of Respondents Who Get and Don't Get Government Aid

Result of Analysis

The results of the logistic regression analysis are shown by table 2:

Table 2. Logit Regression Result

Y = D_HEX	Coefficient	With	Prob. With
D_INC1	2.615536	3.79	0.000***
D_INC2	-0.5788657	-1.21	0.226
D_INC3	-.0424101	-0.09	0.928
OLD	0.0146051	0.71	0.475
D_SEX	-0.7941769	-2.26	0.024**
D_EDU1	2.338241	4.87	0.000***
D_EDU2	1.232072	2.63	0.009***
FAM	0.0948973	0.72	0.473
D_MAR	-0.1807176	-0.44	0.663
D_SUB	0.5959537	1.68	0.093*
Constant	-1.762347	-1.71	0.088*

significant $\alpha = 1\%$
** significant at $\alpha = 5\%$
* significant at $\alpha = 10\%$

Table 2 shows that there are four independent variables that affect dependent variables, individual decisions in allocating their consumption specifically to health. Variables D_INC1 positively and significantly affect dependent variables even at a 1 percent error rate. That is, an individual with income above IDR 5,000,000.00 has a high probability of allocating the income he has for his health. The results of an analysis of the variable sex D_SEX (1 = male;0 = Female) showed negative and significant influences which means female individuals are more likely to care. his health by allocating more funds for his health. Variable D_EDU1 and D_EDU2 have a positive and significant influence that can mean that individuals who have a higher education are more concerned about their health. Government donations (D_SUB) also have a positive and significant influence on the likelihood of individuals allocating their income to health.

Income is the main factor that influences people's consumption behavior (Cox, et al., 2020; Roos & Hahn, 2019; Hamidah, 2016). In the economic literature, income becomes a variable that is always included in consumer behavior analyses. Based on the results of logistic regression analysis, income becomes the most significant variable of its influence on public care to allocate additional funds for health. The higher a person's income, the higher the possibility that he will allocate additional funds for health, especially in the current pandemic. This is in line with Sembiring's research (2018) which concluded that income has a positive effect on spending, including for health.

The Covid-19 pandemic forced the public to spend more income in order to prevent the transmission of the covid-19 virus. However, not a few people who do not spend more funds for their health due to various factors. The results of the analysis showed that the variable sex showed a significant influence. In logistic regression analysis, it was found that women were more concerned about their health. A woman in domestic life is in charge of internal affairs (Hashim, 2018; Zahrok & Suarmini,2018). Thus, women care deeply about the little things that men pay little attention to, such as health.

An individual's concern for health is also influenced by his knowledge of health. A person who has a higher education definitely has more information about health (Adiyani,et al.: 2017). The results of logistic regression analysis show that the individual with his or her last education was high school and the undergraduate had a tendency to care about his health. People who have a higher education, which means having good literacy about health, in this pandemic period have a special additional budget to maintain their health.

In relation to the covid-19 pandemic, the government has issued many policies to address the economic problems of the community in the pandemic period. These policies are commonly referred to as national economic recovery policies. One of the policies that has been done by the government is subsidy assistance / transfer payments. This direct cash assistance policy certainly adds to the flexibility of the community in budgeting. Theoretically, with the increasing budget, the public can allocate their income to the health sector, especially in pandemic times. The results of the logistic regression show that people who get government aids are more likely to care about their health. In this case, it means that the beneficiaries will allocate additional funds for their health.

CONCLUSION

In the era of pandemic covid-19, Indonesia became one of the countries affected quite heavily because of this pandemic. The number of deaths proves this. In addition, Indonesia's economic condition is also burdened quite heavily due to this pandemic. To overcome this, research to look at socio-economic factors that affect people's behavior in efforts to prevent and treat health is very necessary. The results of the analysis showed that income levels, education levels, gender, and government assistance had a positive and significant effect on people's behavioral tendencies to care about his health. People who have high incomes, above IDR 5,000,000.00, have a higher tendency to allocate additional funds in the health sector. In addition, higher educated societies, especially those with the last High School and Bachelor's Education, have better information about Preventive efforts in terms of health so that they will allocate additional funds for health, especially in the pandemic period. The results of the analysis also showed that individual women were more concerned about their health. Finally, individuals who get additional funding from government assistance for covid-19 also allocate additional funds for health.

REFERENCES

Adiyani, Z. O. N., Angraini, D. I., & Soleha, T. U. (2017). Pengaruh pengetahuan, pendidikan dan ekonomi terhadap perilaku hidup bersih dan sehat pada masyarakat Desa Pekonmon Kecamatan Ngambur Kabupaten Pesisir Barat. *Jurnal Majority*, *7*(1), 6-13.

Ahmad, N., Sheikh, M. R., & Saeed, K. (2015). Rural urban food consumption analysis in Pakistan: Expenditure elasticities approach. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 9(1), 159-170.

Colen, L., Melo, P. C., Abdul-Salam, Y., Roberts, D., Mary, S., & Paloma, S. G. Y. (2018). Income elasticities for food, calories and nutrients across Africa: A meta-analysis. *Food Policy*, *77*, 116-132

Cox, N., Ganong, P., Noel, P., Vavra, J., Wong, A., Farrell, D., ... & Deadman, E. (2020). Initial impacts of the pandemic on consumer behavior: Evidence from linked income, spending, and savings data. *Brookings Papers on Economic Activity*, *2020*(2), 35-82.

Dewi, E. U. (2020). Faktor-faktor yang Mempengaruhi Perilaku Masyarakat dalam Pencegahan Penularan COVID-19. *Jurnal Keperawatan*, *9*(2), 21-25.

Etavianti, Syehalad. M. N., & Syahnur, S. (2014). Analisis Faktor-Faktor Yang Mempengaruhi Pengeluaran Konsumsi Kesehatan Rumah Tangga Masyarakat Miskin Di Kabupaten Bireuen. *Jurnal Ilmu Ekonomi: Program Pascasarjana Unsyiah*, 2(4).

Hamidah, C. (2016). Peran keluarga tenaga kerja indonesia di ponorogo dalam menentukan pengeluaran konsumsi dan investasi. *Ekuilibrium: Jurnal Ilmiah Bidang Ilmu Ekonomi*, *11*(1), 18-28.

Hasyim, N. (2018). Pelibatan Laki-Laki dalam Penghapusan Kekerasan Terhadap Perempuan. *Lokalatih: Penguatan Isu Pencegahan Kekerasan Berbasis Gender terhadap Perempuan dan Anak dalam Pandangan Islam Bagi Dosen PTKI*, 1-8.

Khan, J. A., Ahmed, S., & Evans, T. G. (2017). Catastrophic healthcare expenditure and poverty related to out-of-pocket payments for healthcare in Bangladesh—an estimation of financial risk protection of universal health coverage. Health policy and planning, 32(8), 1102-1110.

Li, Y., Wu, Q., Xu, L., Legge, D., Hao, Y., Gao, L., ... & Wan, G. (2012). Factors affecting catastrophic health expenditure and impoverishment from medical expenses in China: policy implications of universal health insurance. *Bulletin of the World Health Organization*, 90, 664-671

Muzindutsi, P. F. (2018). Analysis of South African Household Consumption Expenditure and its determinants.

Rabbaniyah, F., & Nadjib, M. (2019). Analisis Sosial Ekonomi dalam Pemanfaatan Fasilitas Kesehatan untuk Berobat Jalan di Provinsi Jawa Barat: Analisis Data Susenas Tahun 2017. *Media Kesehatan Masyarakat Indonesia*, 15(1), 73-80.

Ramya, N., & Ali, S. M. (2016). Factors affecting consumer buying behavior. *International journal of applied research*, 2(10), 76-80.

Roos, D., & Hahn, R. (2019). Understanding collaborative consumption: An extension of the theory of planned behavior with value-based personal norms. *Journal of Business Ethics*, 158(3), 679-697.

Sembiring, R. (2018). Pengaruh Nilai Tukar Nelayan (Pendapatan Nelayan, Pendapatan Non Nelayan, Pengeluaran Nelayan, Pengeluaran Non Nelayan) Terhadap Kesejahteraan Masyarakat (Pendidikan, Kesehatan, Kondisi Fisik Rumah) di Desa Pahlawan. *Jurnal Abdi Ilmu*, 10(2), 1836-1843.

Wang, H. (2020). Does Household Mortgage Really Restrain Consumption? an Analysis Based on the Data of China Family Panel Studies in 2018. *Journal of Applied Finance and Banking*, 10(6), 1-14

Wuryandari, R. D. (2015). Faktor-Faktor yang Mempengaruhi Pengeluaran Makanan, Pendidikan, dan Kesehatan Rumah Tangga Indonesia (Analisis Data Susenas 2011). *Jurnal Kependudukan Indonesia*, 10(1), 27-42.

Zahrok, S., & Suarmini, N. W. (2018). Peran perempuan dalam keluarga. *IPTEK Journal of Proceedings Series*, (5), 61-65.

Zin, W. Z. W., & Nabilah, S. F. Malaysian Household Consumption Expenditure: Rural vs Urban. In Department of Statistics, Malaysia, *MyStats 2015 Conference Papers*
.

Muhammad Hasyim Ibnu Abbas
Faculty of Economics, Universitas Negeri Malang,
Semarang Street No.5, Malang City, Indonesia
Email: muhammad.hasyim.fe@um.ac.id

Imam Mukhlis
Faculty of Economics, Universitas Negeri Malang,
Semarang Street No.5, Malang City, Indonesia
Email: Imam.mukhlis.fe@um.ac.id

Hadi Sumarson
Faculty of Economics, Universitas Negeri Malang,
Semarang Street No.5, Malang City, Indonesia
Email: hadi.sumarsono.fe@um.ac.id

Agus Sumanto
Faculty of Economics, Universitas Negeri Malang,
Semarang Street No.5, Malang City, Indonesia
Email: agus.sumanto.fe@um.ac.id