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Catastrophic Health Expenditure And Multidimensional Household Poverty In Java Island, Indonesia

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ABSTRACT

This study aims to analyze the influence of household catastrophic health expenditure incidents and household characteristics on household multidimensional poverty status in Java Island, Indonesia. The study was conducted quantitatively inferentially based on IFLS 5 data in 2014 obtained from Susenas totaling 8,458 households. The data analysis used logistic regression with ordered logit model. The results of the study revealed that households experiencing catastrophic health expenditure increasingly tend to experience multidimensional poverty. Household characteristics such as the number of family members and the number of toddlers that are getting bigger can also increase this tendency. However, it is different from the level of education and location of residence which can reduce the tendency of households to experience multidimensional poverty.

INTRODUCTION

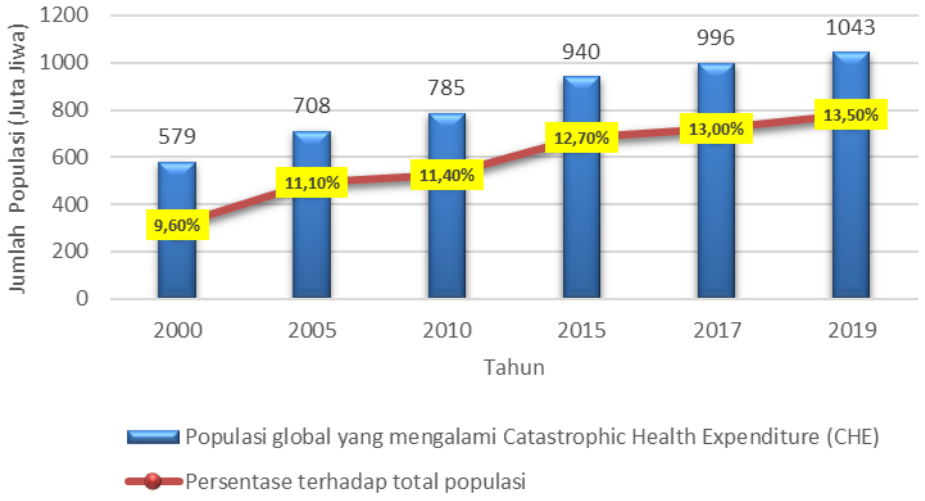
From an economic perspective, health is a unique economic good because it is seen as a durable good, or a type of stock of health that is consumed continuously throughout a person's lifetime (Grossman, 1972b, 1972a). Each person has a certain stock of health at the beginning of life. As people age, health can depreciate and can be improved by investing in health such as getting medical services. Investment in health can be related to one's preference for time. Good health means that a person will allocate less time to illness so that they will have more healthy time in the future for productive activities such as working and increasing income (Santerre & Neun, 2012). Health investments made by the community are closely related to the provision of adequate medical services which have specifically become the agenda of Sustainable Development Goals (SDGs) number 3.8, namely Universal Health Coverage (UHC). UHC means that every individual, wherever and whenever, can receive quality health services without experiencing financial hardship (World Health Organization, 2023).

Herawati et al. (2020) revealed that Indonesia has two major obstacles in realizing UHC, namely limited access to health services and high health expenditure financed independently (*out-of-pocket spending*/OOP). The high OOP is a burden for society because the existence of OOP shows that individuals do not have financial protection when accessing health services. In fact, within certain thresholds, OOP can cause Catastrophic Health Expenditure (CHE) conditions.

CHE is a condition when a household has an OOP proportion that exceeds a certain threshold of total expenditure or household payment capacity (Liu et al., 2019; O'Donnell et al., 2007). CHE incidents have a negative impact on households because CHE is a health shock that can disrupt resource allocation in households. The thresholds used include referring to the provisions of the SDGs, namely 10 percent and 25 percent of total expenditure (Fuady et al., 2018; Kimani et al., 2016; Kwon & Kim, 2012).

According to WHO and World Bank reports, the trend of catastrophic health spending in the world continues to increase, even in the period before the Covid-19 pandemic. From 2000 to 2019, the proportion of the population with direct health expenditure (OOP) exceeding 10 percent of total household expenditure continued to increase from 579 million (9.6 percent of the population) in 2000 to 1,043 million (13.5 percent of the population) in 2019.

Figure 1 Number (in millions) and Percentage of the World Population Experiencing Catastrophic Health Expenditure, 2000 – 2019



Source: World Health Organization, (2023)

Several studies have revealed that the incidence of CHE in Indonesia is still quite high. Nugraheni and Hartono (2017) found that 5.3 percent of households in Indonesia experienced catastrophic incidents. In addition, Herawati et al. (2020) conducted a study using data from RISKESDAS and SUSENAS in 2018. The study found that nearly 13 million people spent more than 10 percent of their total consumption to finance health services. This amount is equivalent to 3.62 percent of the total population (Özgen Narcı et al., 2015).

There is a lot of evidence that OOP can impoverish households. Kimani et al. (2016) conducted research in Kenya and found that around 6.3 percent or equivalent to 2.5 million people fell into poverty due to self-paid health expenses. Similar things were also found in Vietnam (Ensor & San, 1996) where around 60 percent of households that bear OOP have a history of debt.

Several studies have shown that CHE incidents can be the main cause of households falling into poverty. A literature review conducted by Alam & Mahal (2014) found that in the low-middle income group of countries, poor health is the main cause of household impoverishment because households have to bear the burden of high health expenditures and this results in disrupted

consumption. In addition, Wagstaff et al. (2018) conducted a study in 122 countries in the world to determine the differences in impoverishment between countries that have and have not been covered by health insurance schemes and the handling mechanisms for households experiencing CHE. The findings obtained showed that the phenomenon of poverty due to OOP occurs even in countries where the entire population is officially covered by national health service insurance.

The relationship between CHE and poverty can also be seen through health behavior in poor households. Research in Sri Lanka revealed that individuals who live in villages and suffer from non-communicable diseases such as cancer, heart disease, and kidney disease are more likely to fall into poverty (Jayathilaka et al., 2020). Some unhealthy behavior in poor households also has negative impacts such as childhood obesity (Min et al., 2018), alcohol consumption (Najman et al., 2010) to emotional and mental health disorders (Freimuth & Hovick, 2012).

With various research results available, it appears that each region has different characteristics of problems and relationships between CHE and multidimensional poverty, including Indonesia as a country that continues to strive to improve the quality and coverage of health insurance as it should. This is mainly based on the fact that the incidence of CHE in Indonesia, using a threshold of 10 percent, continues to increase from 3.6 percent in 2015 to 4.5 percent in 2017 (World Health Organization & The World Bank, 2021). This increase actually occurred amidst the increasingly wide coverage of JKN membership exceeding 80 percent in early 2018. In the midst of the lack of evidence regarding the relationship between CHE and multidimensional poverty in Indonesia, this study attempts to fill this gap. This study will analyze how the incidence of CHE can affect multidimensional poverty in households in Indonesia along with other determinants that are suspected to have an influence such as the age of the head of the family, gender, education level of the head of the family, and location of the household residence. The analysis was conducted using a cross-sectional analysis perspective, namely analyzing the incidence of CHE in 2014 against multidimensional poverty in 2014. The scope of the study focuses on households in Java Island. This is because 50% or exactly 56% of Indonesia's population lives in Java Island. In addition, Java Island also has complete service facilities and easy access to reach.

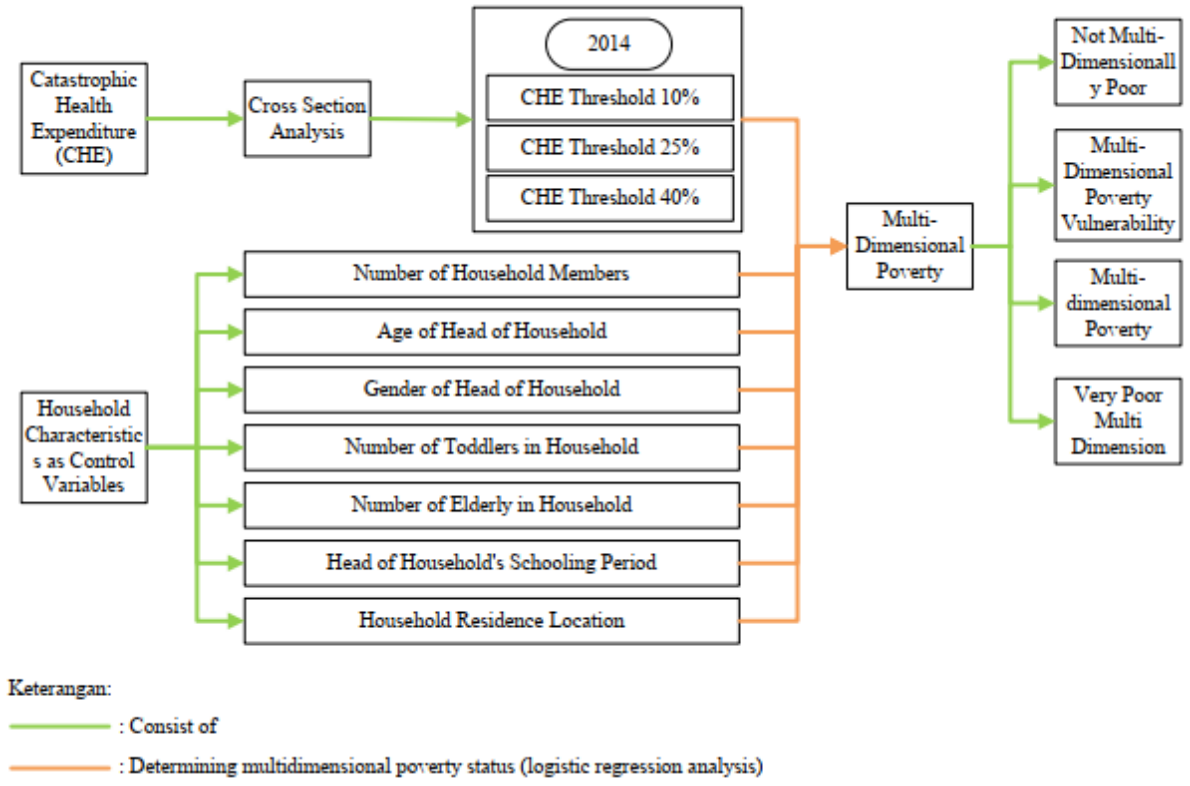
Based on the background description, this study was conducted with the aim of testing the effect of household catastrophic health expenditure incidents on the multidimensional poverty status of households in Indonesia, especially in provinces on the island of Java. This study also involved control variables which are household characteristics, consisting of the age of the head of the household, gender of the head of the household, length of schooling of the head of the household, number of toddlers, number of elderly, number of household members, and location of household residence. With the evidence-based analysis conducted in this study, the contribution provided is in the form of policy implications and strategic steps that can be taken by the Government and related parties in the context of poverty alleviation, especially from the aspect of health expenditure according to the conditions in Indonesia. This refers to the relationship between catastrophic health expenditure and multidimensional poverty so that appropriate policies can be implemented. These policy implications also lead to Indonesia's efforts to achieve the interrelated Sustainable Development Goals indicators, namely No Poverty and Good Health and Well-Being.

LITERATURE REVIEW

The main variable that we want to know the effect on multidimensional poverty in this study is catastrophic health expenditure (CHE). The threshold used as a determinant in this study is 10 percent, 25 percent on budget share and 40 percent on capacity to pay. In addition, there are also a number of control variables, namely household characteristics, which are thought to be able to determine changes in the status of multidimensional poverty in households.

The first factor describes the incident experienced by the household as a catastrophe (CHE) in 2014 which is then suspected to have an influence on the household's multidimensional poverty status in 2014 (cross section). The next factor is the group of determinants of multidimensional poverty which is suspected to have an influence, namely household characteristics. Household characteristics consist of the number of household members, age of the head of the household, gender of the head of the household, number of toddlers, number of elderly people, education of the head of the household, and location of the household (village/city). This is shown in Figure 1.2.

Figure 2 Framework



This study uses a model conducted by Pinilla-Roncancio et al. (2023) in order to see the determinants of multidimensional poverty status, especially related to the main variables whose influence we want to know, namely catastrophic health expenditure (CHE), as well as control variables for household characteristics. The model used is a logistic regression model with an ordinal scale dependent variable (ordered logit).

$$MPStat\_2014_i = \alpha_0 + \alpha_1 CHE_i + \alpha_2 HH\_Size_i + \alpha_3 HHH\_Age_i + \alpha_4 HHH\_Sex_i + \alpha_5 HH\_Child_i$$

$$+ \alpha_6 HH\_Elderly_i + \alpha_7 HHH\_YearSchool_i + \alpha_8 HH\_Location_i + \mu_i$$

Description:

MPStat_2014 : *Ordered Logit of household multidimensional poverty status in 2014. This variable consists of four value categories, namely*:

a. Valued at 1 when the household is not multidimensionally poor
b. Valued at 2 when the household is vulnerable to multidimensional poverty
c. Valued at 3 when the household is multidimensionally poor

d. Valued at 4 when the household is very multidimensionally poor

CHE : Household Catastrophic Health Expenditure incident in dummy form. Valued at 1 if the household is categorized as experiencing a catastrophic incident and valued at 0 if the household is not categorized as experiencing a catastrophic incident at each threshold (10%, 25% and 40%)

HH_Size : Number of household members in 2014

HH_Age : Age of head of household in 2014 in years

HH_Sex : Gender of the head of household in 2014 in dummy form. Valued at 1 if the head of household is male and 0 if female

HH_Child : Number of toddlers in households in 2014

HHElderly : Number of family members aged over 60 years (elderly) in households in 2014

HHH_YearSchool : Length of time taken by the head of household to attend school until 2014 in years.

HH_Location : Household residence location in dummy form. Valued at 1 when the household is located in the city and value 0 when the household is located in the village

μ : *error term*

The hypothesis proposed in this study based on Figure 1.2 and the analysis model is that there is an influence of the household catastrophic health expenditure incident and household characteristics on the multidimensional poverty status of households in the provinces on Java Island. Similar research has also been conducted by Pinilla-Roncancio et al. (2023) which aims to determine the relationship between CHP at the household level and the incidence of multidimensional poverty in seven countries that are low-middle income countries, namely Colombia, Mexico, India, Malawi, Nigeria, Uganda, and Tanzania. The results of the study showed that in households in the seven countries that were the objects of the study, the incidence of CHP had a positive and significant effect on the possibility of households becoming multidimensionally poor. However, when a longitudinal analysis was conducted, namely an analysis involving data from more than one point in time, the relationship between household catastrophic health incidents was only found in three countries, namely India, Colombia and Nigeria. However, the estimation results in the longitudinal analysis showed a smaller coefficient when compared to the cross-section analysis. The results of the analysis were continued by interacting household catastrophic events with household income groups. In the case of India, the effect of household catastrophic events on multidimensional poverty is shown to be statistically significant for households in the second and third quartiles (low-middle income household group). Kumar et al. (2015) added that 7 percent of the population in China and 8 percent of the population in India are poor due to Out-Of-Pocket Health Expenditure (OOPHE). In line with both studies, research from Bernabé et al., (2017) explains that households that have out-of-pocket payments have a 1.65 times higher chance of becoming poor. Based on this description, the hypothesis of this study is.

H1: The incidence of catastrophic health expenditure in households has an impact on the multidimensional poverty status of households

METHODS

Data Collection Method

his study is an inferential quantitative study. The inferential quantitative approach aims to test the effect of an independent variable on the dependent variable using statistical analysis in the form of regression analysis. The study uses secondary data from IFLS 5 in 2014. IFLS data is household survey data involving 15,921 households from 24 provinces. From secondary data

from IFLS 5 in 2014, this study focuses on households in Java Island totaling 8,458 households. Java Island was chosen in this study because it is the island with the most densely populated population in Indonesia, with 56% of Indonesia's population living on Java Island with easily accessible health service facilities..

Operational Variable

The research variables consist of three variables, namely multidimensional poverty, catastrophic health expenditure (CHE), and household characteristics. The operationalization of each variable studied is shown in Tables 1 to 3 below.

Tabel 1 Dimensi, Indikator, dan Kriteria Deprivasi Kemiskinan Multidimensi

Dimensions	Indicator	*Cut Off*	SDG Area	Weight	Category	Source
Health	**Child Death**	There were children under 18 years of age who died within 5 years before the survey period	SDG 3	1/6	There are children who die, are stillborn, have miscarriages	Alkire, Kanagaratnam dan Suppa (2023) ; Wardhana (2010)
	Health Insurance	There are household members who do not have health insurance	SDG 3	1/6		Wardhana (2010) ; Pinilla-Roncancio (2023)
Education	**School Years**	There are household members who have not completed basic education (6 years)	SDG 4	1/6		Alkire, Kanagaratnam dan Suppa (2023)
	School Participation	There are school age children (7-14 years) who do not attend school	SDG 4	1/6		Alkire, Kanagaratnam dan Suppa (2023)
Standard of Living	**Cooking Fuel**	Households cook using solid fuels (firewood and charcoal/coal). Not classified as deprived households when households do not cook.	SDG 7	1/21		Alkire, Kanagaratnam dan Suppa (2023) ; Pinilla-Roncancio (2023)
	Electricity	Households do not have electricity	SDG 7	1/21		Alkire, Kanagaratnam dan Suppa (2023) ; Pinilla-Roncancio (2023) ; Wardhana (2010)
	Sanitation	Households have inadequate sanitation facilities or no sanitation facilities or adequate sanitation	SDG 6	1/21	no toilet pit toilet shared	Alkire, Kanagaratnam dan Suppa (2023) ; Pinilla-

Dimensions	Indicator	*Cut Off*	SDG Area	Weight	Category	Source
		facilities but are shared with other households.			toilet	Roncancio (2023) ; Wardhana (2010)
	Drinking water	Household drinking water sources are classified as unsafe for consumption or are classified as safe for consumption but require 30 minutes (2.5 km) or more walking from home	SDG 6	1/21	*Non mineral water Non-Pipe Water Surface Water Others*	Alkire, Kanagaratnam dan Suppa (2023); Pinilla-Roncancio (2023) ; Wardhana (2010)
	Asset Ownership	Households own no more than one of the following types of assets: radio, television, telephone, animal cart, bicycle, motorcycle, refrigerator, and do not own a car or truck or tractor	SDG 1	1/21		Alkire, Kanagaratnam dan Suppa (2023) ; Pinilla-Roncancio (2023) ; Wardhana (2010)
	Ownership of savings	Households do not have savings/deposits/shares	SDG 1	1/21		Wardhana (2010)
	Land ownership	Households do not own land for their household economic activities. If the household's main economic activity is non-agricultural, then the household is categorized as not deprived	SDG 1	1/21		Pinilla-Roncancio (2023)

Tabel 2 Formation of Catastrophic Health Expenditure Variables

Description
The formation of the CHE dummy variable and the CHE transition requires data related to out-of-pocket (OOP) health expenditure, total household expenditure and household capacity to pay as per the following calculation formula:

Approach	Limit	Formula
Budget Share	10%	$CHE = 1 \; if \; \frac{OOP}{Total \; Expenditure} \geq 10\%$
		$CHE = 0 \; if \; \frac{OOP}{Total \; Expenditure} < 10\%$

	25%	$CHE = 1\ if\ \frac{OOP}{Total\ Expenditure} \geq 25\%$
		$CHE = 0\ if\ \frac{OOP}{Total\ Expenditure} < 25\%$
Capacity to Pay	40%	$CHE = 1\ if\ \frac{OOP}{(Total\ Expenditure - Food\ Expenditure)} \geq 40\%$
		$CHE = 0\ if\ \frac{OOP}{(Total\ Expenditure - Food\ Expenditure)} < 40\%$

The three data above were obtained in the following manner:

No	Data source		Calculation
1	OOP:	B1_KS08 huruf C How much was spent on health costs including hospital fees, health centers, practicing doctors, medicines and others by all household members during the last year?	Health expenditure is presented in a period of 1 year so that this study equates all variables forming CHE into annual units
2	Food Expenditure	B1_KS02 During the last week, what was the total expenditure/purchase for food?	Presented in a period of one week so that the food expenditure variable is multiplied by 4 to be converted to monthly, then multiplied by 12 to get the value in a period of 1 year
3	Routine non-food expenses	B1_KS06 How much was the expenditure for (....) by all household members during the last month, namely since the date (...) of last month?	Presented in a period of 1 month so that for routine non-food expenses it is multiplied by 12 to get the value in a period of 1 year
4	Education Expenditure	B1_KS10a Approximately how much does it cost to go to school (tuition fees, school committee, registration fees, exams, other contributions such as OSIS, re-registration fees)? B1_KS11a Approximately how much does it cost for school equipment (school uniforms, school supplies, etc.)? B1_KS12a Approximately how much are the costs for transportation, pocket money and courses related to school/college?	Served within 1 year
5	Total Household Expenditure	The total household expenditure variable is obtained from the sum of food, non-food and education expenditure in 1 year.	

Tabel 3 Operational of Household Characteristics Variable Groups

No	Household Characteristics	Data source	Calculation
1	Number of Household Members	B3A_COV	number of household members
2	Age of Head of Household	BK_AR09 Current age of household members	age of head of household
3	Gender of Head of Household	BK_AR07 Gender of household members	Presented in dummy form 1=Male; 0=Female
4	Number of Infants and Toddlers in Household	BK_AR09 Filter Current household member age under 5 years	Number of babies and toddlers in the household
5	Number of Elderly in Household	BK_AR09 Filter Current household member age over 65 years	Number of elderly in the household
6	Head of Household's Schooling Period	BK_3A DL06 What is the highest level of education that you have/are currently attending? BK_3A DL07 What is the highest level/class that you have completed at this school?	Presented in years. For example, when the highest education ever attended was junior high school and the highest grade ever completed was grade 2, then the length of schooling of the head of the household is 8 years
7	Household Residence Location	Buku T SC05 Residential area	Presented in dummy form 1=urban; 0=rural

Data Analysis Technique

Based on the operational definition of the variables that have been explained, it is known that the dependent variable in this study, namely multidimensional poverty, is a qualitative variable with an ordinal scale. Therefore, the econometric model used in this study is logistic regression with ordinal scale variables or ordered logit model. The statistical tool used is Stata version 17. The estimation method used in the ordered logit model is the maximum likelihood method. This method is used as a substitute for ordinary least square which aims to minimize errors, considering that the use of OLS will make the estimator obtained unable to meet the BLUE criteria. The use of maximum likelihood makes the estimation results of the standard error value asymptotic. Hypothesis testing is done using the p-value, namely comparing the level of significance (α) with the p-value. If the p-value is less than α then H_0 is rejected so that there is a partial influence of the independent variable on the dependent variable.

Gujarati (2021) emphasizes that the main thing to consider in logit and ordered logit regression is the significance value of the model, the significance of the independent variables, and the direction of the coefficients of the independent variables. Goodness of fit is the second criterion. The first priority is the sign and statistical significance of the regression coefficients. So, a low Pseudo R2 value does not make a model considered bad because the value of Pseudo R2, which ranges from 0 to 1, is an artificial interpretation to replace the R-square value in the OLS method. Interpretation of the estimation results of the logit model with the dependent variable in the form of ordered categories is slightly different when compared to the binary logit model. In ordered logit, interpretation can be done by looking at the direction of the coefficient of the independent variable (positive or negative). If an independent variable is proven to be statistically significant and has a positive coefficient, then when the independent variable increases by one unit, it will increase the probability of being in a higher category, ceteris paribus. In addition to the interpretation of the direction of the independent variable coefficient, interpretation can also be done using the odds ratio. As explained previously, the odds ratio value is obtained by transforming the logit value into anti-log form. A positive odds ratio value indicates that if the independent variable increases by one unit, the probability of being in a higher category also increases by (odds ratio) times.

RESULTS

Table 4 shows the descriptive statistics in this study. Table 4 shows that the majority of household members involved in this study were 5 people with an average age of the head of the household of 44 years and male, and most of them did not graduate from junior high school. Most of the households involved in this study did not have babies and elderly people. Most of the households involved in this study lived in urban areas.

Tabel 4 Descriptive Statistics of Research Variables

Variable	Obs	Mean	Std. dev.	Min	Max
Family_Size	8.458	5,341452	3,072108	1	25
HH_Age	8.458	44,82939	15,04777	7	101
HH_Gender	8.458	0,8039726	0,397013	0	1
HH_Child	8.458	0,418184	0,6044535	0	4
HH_Elderly	8.458	0,3959565	0,6545194	0	4
HH_Year_Sc~l	8.458	8,103216	4,607125	0	22
HH_Residence	8.458	0,6751005	0,468365	0	1
CHE_10	8.458	0,0509577	0,2199243	0	1
CHE_25	8.458	0,0141878	0,1182714	0	1
CHE_40	8.458	0,0191535	0,1370724	0	1
MP_Stat~2014	8.458	2,549302	0,9295855	1	4

Most of the households in Java Island involved in this study are households that are included in the multidimensional poverty category. This shows that most households experience conditions of deprivation in terms of health, education, and standard of living.

Tabel 5 Regression Results

MP status 2014	CHE 10%			CHE 25%			CHE 40%		
	Coefficient / odds ratio	Std. err.	P>z	Coefficient / odds ratio	Std. err.	P>z	Coefficient / odds ratio	Std. err.	P>z
CHE_10	0,43845 1,55031	0,08601	0,000						
CHE_25				0,38120 1,464036	0,15503	0,014			
CHE_40							0,36281 1,437357	0,13736	0,008
HH_Size	0,04622 1,047309	0,00773	0,000	0,04559 1,04665	0,00773	0,000	0,04592 1,046995	0,00773	0,000
HH_Age	-0,00837 0,9916641	0,00176	0,000	-0,00805 0,9919843	0,00176	0,000	-0,00813 0,9919072	0,00176	0,000
HH_Sex	-0,00058 0,9994202	0,05081	0,991	-0,00405 0,9959563	0,05078	0,936	-0,00125 0,998746	0,05080	0,980
HH_Child	0,19628 1,216869	0,03543	0,000	0,20269 1,224688	0,03538	0,000	0,20227 1,224183	0,03539	0,000
HH_Elderly	0,00056 1,000561	0,03768	0,988	0,00616 1,006177	0,03768	0,870	0,00601 1,006032	0,03767	0,873
HH_YearSchool	-0,03385 0,9667159	0,00483	0,000	-0,03330 0,9672481	0,00483	0,000	-0,03305 0,9674896	0,00483	0,000
HH_Location	-0,16111 0,8511949	0,04444	0,000	-0,16650 0,8466194	0,04441	0,000	-0,16697 0,8462285	0,04441	0,000

Source: Data Processed, 2025

Based on the results in Table 5, it can be explained that the hypothesis testing carried out in this study is shown in more detail in Table 6 below.

Tabel 6 Hypothesis Testing

Hypothesis	P values	results
1. The incidence of catastrophic health expenditure in households has an impact on the multidimensional poverty status of households		
a. CHE_10	0,000	Accepted
b. CHE_25	0,000	Accepted
c. CHE_40	0,000	Accepted
2. Control Variable		
a. HH_Size	0,000	Accepted
b. HH_Age	0,000	Accepted
c. HH_Sex	0,991	Not Accepted
d. HH_Child	0,000	Accepted
e. HH_Elderly	0,988	Not Accepted
f. HH_YearSchool	0,000	Accepted
g. HH_Location	0,000	Accepted

DISCUSSION

Based on the results of the hypothesis test, it is known that CHE_10, CHE_25, and CHE_40 have an effect on the multidimensional poverty status of households in Java. If we look at the threshold of CHE incidents experienced by households, it can be explained that households experiencing CHE incidents at a threshold of 10 percent are likely to experience an increase in multidimensional poverty status 1.55 times greater than households that do not experience CHE incidents. Furthermore, households experiencing CHE incidents at a threshold of 25 percent are likely to experience an increase in multidimensional poverty status 1.46 times greater than households that do not experience CHE incidents, and households experiencing CHE incidents at a threshold of 40 percent are likely to experience an increase in multidimensional poverty status 1.44 times greater than households that do not experience CHE incidents.

These results prove that the burden of health expenditure is one of the factors that can cause poverty in households in Java. This is in line with data revealed by the World Bank that countries in Asia have the highest percentage, namely 1.7% of the population experiencing poverty due to spending on obtaining health services (World Health Organization & The World Bank, 2021). Wagstaff et al. (2018) adding that countries with low incomes, such as Indonesia, tend to have populations experiencing poverty due to health expenditure.

Households with health expenditure of 10 percent of total consumption tend to experience the greatest increase in multidimensional poverty status. The results of the study also prove that the incident of catastrophic health expenditure experienced by households can increase multidimensional poverty status. In line with the results of the study from Pinilla-Roncancio et al. (2023) which explains that the CHP incident has a positive and significant influence on the likelihood of a household becoming multidimensionally poor. The same result is also explained by Sirag & Nor (2021) that households that experience an increase in total expenditure can increase the percentage of poor people.

If observed in more detail, there are other factors that can determine multidimensional poverty in households on Java Island. The factors in question are the number of household members, the age of the head of the household, the number of toddlers in the household, the length of schooling of the head of the household and the location of the household's residence. If we look at the influence, the increasing number of family members and toddlers in a household can increase the tendency of households to experience multidimensional poverty. However, the increasing age of the head of the household with a longer schooling period can reduce the tendency of households to experience multidimensional poverty. This also includes the place of residence of the household, the closer it is to urban areas, the lower the tendency of households to experience multidimensional poverty.

CONCLUSION

Based on the research results, it is known that poverty experienced by households in Java Island is significantly influenced by catastrophic health expenditure. This explains that the greater the health burden borne by the household, or the greater the household's expenditure to obtain health services, the greater the tendency of the household to experience multidimensional poverty. In addition, household characteristics such as the number of family members and the number of toddlers that are increasing can also increase the tendency of households to experience multidimensional poverty. However, if the household is headed by a man with a high level of education supported by a household residence that is close to or in an urban area, it can reduce the tendency to experience multidimensional poverty.

LIMITATION

This study has several limitations, such as the availability of research data from the National Socioeconomic Survey (Susenas) used in this study is in 2014. This makes the study less able to provide an actual picture of the conditions of multidimensional poverty and catastrophic health expenditure experienced by households in an updated and sustainable manner. Therefore, for future research, the latest data can be used if it is available from Susenas so that it can provide a more updated picture of the conditions of multidimensional poverty and catastrophic health expenditure experienced by households in Java.

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