

The Influence of Sociodemographic Factors on Community Health Status West Sumatra Province

Yenni Del Rosa¹, Syahril², Febriani³, Henny Sjafitri⁴, SaptaEka Putra⁵

¹Lecturer Still Faculty Economy And Business , Study Program Management
Dharma Andalas University , West Sumatra, Indonesia
yennidelrosa01@gmail.com

²Lecturer Still Faculty Economy And Business , Study Program Management
Dharma Andalas University , West Sumatra, Indonesia
syahrilsenyo@gmail.com

³Lecturer Still Faculty Economy And Business , Study Program Management
Tamansiswa University , West Sumatera, Indonesia
anifebri173@gmail.com

⁴Lecturer Still Faculty Economy And Business , Study Program Management
Tamansiswa University , West Sumatera, Indonesia
sjafitrihenny @gmail.com

⁵Lecturer Still Faculty Economy And Business , Study Program Management Retail
Tamansiswa University , West Sumatera, Indonesia
saptaeka54putra@gmail.com



Abstract – The aim of the research is to determine the influence of education, income, age, gender, place of residence, marital status and work stress on the health status of the people of West Sumatra province partially and simultaneously. *Cross data section* comes from literature study . The research population was 12 districts and 7 cities in West Sumatra province, the sample was determined by census. Results of the logistic multiple linear regression equation $Y = 0.211 + \text{Log } 0.497X_1 + \text{Log } 0.715X_2 - \text{Log } 0.248X_3 - \text{Log } 0.221X_4 + \text{Log } 0.386X_5 + \text{Log } 0.589X_6 - \text{Log } 0.453X_7 + e$. Partially and simultaneously, education, income, residence, marital status and work stress have a significant positive effect on the health status of the people of West Sumatra province, except that age and gender have a significant negative effect on the health status of the people of West Sumatra province.

Keywords – Health Status, Education, Income, Age, Gender, Placeresidence, Marital Status, Work Stress

I. INTRODUCTION

Health problems can be seen from an economic perspective because health affects economic growth^[1]. Education and health are one of the indicators for measuring human resources and health influences quality education^[2]. Good population health is an important *input* in reducing poverty, increasing economic growth and long-term economic development^[3]. Health development facilities need to be improved and improved to achieve maximum levels of public health and individual health can increase *output* to increase productivity^[4]. Health is a state of being physically, mentally, spiritually and socially healthy so that it enables everyone to live a productive life socially and economically^[5].

According to *the Commonwealth Fund Biennial Health Insurance Survey*, decreased productivity is caused by individual factors, not being able to work due to poor health/disability, workers missing work time, health problems and workers being less productive at work due to morbidity^[6]. Education in Indonesia is relatively low compared to other countries because the number of schools spread across the regions is relatively small. Increasing age causes the School Participation Rate (APS) to decrease^[7]. Income influences health status because income measures health status seen from income allocation. High income earners tend to invest in the health sector^[8] to live a healthy life by consuming healthy food and exercising so that their health status is good^[9]. Increasing age causes various diseases to occur and the need for health services is not met. Women's health is lower than men's, they often get sick because women are more lazy to move, choosing to spend their free time watching TV and staying quiet.

The health status in Western Indonesia and Eastern Indonesia is different due to differences in education, demographics, place of residence, health status, lifestyle, healthy lifestyle as well as behavior and knowledge. Married people are generally healthier than unmarried people^[10]; Marriage improves preventive care^[11], reduces the risk of nursing home admission and nursing home costs^[12]. Work stress includes physical and mental health problems because it affects productivity; Work stress is significantly related to health problems^[13] and affects performance^[14].

Problem study how? education, income, age, gender, place of residence, marital status and work stress influence community health status of West Sumatra province as a whole Partial And simultaneous? Objective study know influence education, income, age, gender, place of residence, marital status and work stress to community health status of West Sumatra province as a whole Partial And simultaneous.

Health status is influenced by genetic factors, health care facilities, lifestyle and environment^[15], socio-economic, political and cultural factors^[16]. The health status of urban and rural areas is different, urban residents are healthier than rural residents^[17] due to inequality in health service facilities. Differences in health service facilities and poverty, the health status of urban communities is better than rural communities^[18].

Sociodemography is the science that studies the population of an area regarding community structure such as income, employment, education, age, gender, marital status and work experience^[19]. Income can be seen from expenditure^[20] income influences consumption. A person with a low income tends to have worse health status than a person with a high income^[21]. A person with a high income has a healthier lifestyle and pattern because they pay more attention to their health using health insurance. Education influences health status because if education is high then there is a lot of knowledge and information that is important for maintaining health status and better cognitive capacity^[22].

Increasing a person's age influences decision making^[23] as a basis for developing interventions to determine health and welfare policies^[24]. The higher a person's age, the lower the level of independence in carrying out *Activities Daily Living* (ACL) and gender does not have a significant relationship with ACL^[25].

Stress is a condition of tension that affects a person's emotions, processes and thinking^[26]. Work stress is a psychological symptom felt in carrying out tasks that threatens one's existence and well-being^[27]. Factors that cause stress are related to organizational conditions, social demands, family and personal characteristics^[28]. Job stress has a negative impact on performance and absenteeism resulting in the possibility of changing jobs^[29]. Work stress affects mental health^[30], it affects physical health and mental health causing *burnout*, both of which are interconnected^[31]. Job stress and lack of self-confidence are significantly related to healthy lifestyles^[32]. Managing stress is quite important from negative stress to positive stress, threats can be modified into challenges. Someone who is under stress can exercise regularly, get enough rest and consume nutritious food^[33].

Hypothesis is answer temporary to problem what is being researched and tentative statements as conjectures about what is being observed in an effort to understand it^[34]. Hypothesis research: it is suspected that education, income, age, gender, place of residence, marital status and work stress have a significant positive effect on community health status of West Sumatra province as a whole Partial And simultaneous.

II. RESEARCH METHODS

Type study classified associative aim give description about problem study with approach quantitative nature proof or development^[34]. Research consists of *cross section* data from BPS^[7] and the Ministry of Health^[35]. Population study 12 regency And 7 cities in West Sumatra province, sample study determined with method census. Data analysis use multiple linear regression logistics with formulas^[35] $Y_{it} = \alpha + \beta_1 \text{Log}(X_1)_{1it} + \beta_2 \text{Log}(X_2)_{2it} + \beta_3 \text{Log}(X_3)_{3it} + \beta_4 \text{Log}(X_4)_{4it} + \beta_5 \text{Log}(X_5)_{5it} + \beta_6$

$\text{Log}(X_6)_{6it} + \beta_7 \text{Log}(X_7)_{7it} + e_{it}$. The variables health status, gender, marital status, place of residence and work stress are categorized as 1 and 0. Education is determined based on length of education (years) and income in categories 1 – 4. Partial and simultaneous hypothesis testing at a significance level of 5%.

III. RESULTS AND DISCUSSION

The results of logistic multiple linear regression of research data are as follows in table 1:

Table 1.Coefficients

	Constant	Variable						
		X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇
β	.211	.497	.715	.248	.221	.386	.597	.453
t	.478	.0303	.0331	-.004	-.002	.0102	.0154	.0326
Sig	.633	,000	,000	,000	,000	,000	,000	,000
Dependent Variable: Status Kesehatan								

Source: Processed Primary Data, 2023

According to table 1 above equation multiple linear regression logistics $Y = 0.211 + \text{Log } 0.497X_1 + \text{Log } 0.715X_2 - \text{Log } 0.248X_3 - \text{Log } 0.221X_4 + \text{Log } 0.386X_5 + \text{Log } 0.597X_6 + \text{Log } 0.453X_7 + e$ interpretation as following :

$\alpha = 0.211$ It means when No There is education, income, age, gender, place of residence, marital status and work stress then the public health status of West Sumatra province is 0.211.

$\beta_1 = \text{Log } 0.497$ It means when education up 1 year so the public health status of West Sumatra province has increased equal to log 0.497 with assumption income, age, gender, place of residence, marital status and work stress fixed .

$\beta_2 = \text{Log } 0.715$ It means when income _ go on Rp. 1 so The public health status of West Sumatra province increased by log 0.715 with assumption education, age, gender, place of residence, marital status and work stress fixed .

$\beta_3 = -\text{Log } 0.248$ It means when age up 1 year then the public health status of West Sumatra province decreased by log 0.248 with assumptions about education, income, gender, place of residence, marital status and work stress fixed .

$\beta_4 = -\text{Log } 0.221$ It means when male/female gender so the public health status of West Sumatra province decreased by log 0.221 assuming education, income, age, place of residence, marital status and work stress fixed .

$\beta_5 = \text{Log } 0.386$ It means when residence in cities/villages so West Sumatra province's public health status increased by log 0.386 assuming education, income, age, gender, marital status and work stress fixed .

$\beta_6 = \text{Log } 0.597$ It means if marital status is married/not so the public health status of West Sumatra province increased by log 0.597 with assumption education, income, age, gender, place of residence and work stress fixed .

$\beta_7 = \text{Log } 0.453$ It means when work stress occurs/does not occur then the public health status of West Sumatra province increased by log 0.453 with assumed education, income, age, gender, residence and marital status fixed .

The Influence of Sociodemographic Factors on Health Status

By Partial all sociodemographic variables (education, income, place of residence, marital status and work stress) influential positive significant on health status Because *pvalue* $0.000 < 0.05$ except age and gender have a negative direction [36]. Education influences health status because highly educated people know how to maintain their health status to avoid various types of diseases. Income affects health status because part of income is allocated to various health program costs resulting in high mortality rates. Age and gender have a significant negative effect on health status because the older you get, the less your health will improve. The health status of women is better than men and the disease burden is different because around 1 in 2 Indonesian women have health insurance [37] so the life expectancy of women is higher than men. Where you live affects your health status because a healthy home is one of the means to achieve optimum health status. Marital status influences health status because

almost 7 out of 10 married women in Indonesia say that they make important decisions in the household either alone or together [37]. Work stress also affects health status because when the work done exceeds capacity, resources and abilities.

By Simultaneously education, income, age, gender, place of residence, marital status and work stress have a significant positive effect on health status because $pvalue$ $0.000 < 0.05$. Correlation education, income, age, gender, place of residence, marital status and work stress with health status $R = 0.777$ each are interconnected. The influence of education, income, age, gender, place of residence, marital status and work stress on health status $R^2 = 0.604$, the remaining 0.396 is influenced by other factors not included in the research model. Health status is explained by education, income, age, gender, place of residence, marital status and work stress as seen from the value of *Adjusted* $R^2 = 0.593$, the remaining 0.407 is explained by other factors not included in the research model.

IV. CONCLUSION

Conclusions based on the research results : education, income, residence, marital status and work stress have a significant positive effect on the health status of the people of West Sumatra province partially and simultaneously except that age and gender have a significant negative effect on the health status of the people of West Sumatera province.

A CONFESION

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CONFLICT INTEREST

We're a team researcher state that no there is conflict interest relate with results study this.

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