

**Factors Affecting The Diversity Of Family Food
Consumption In Rural Areas
(Factors That Influence Diversity Of Family Food
Consumption In Rural)**

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ABSTRACT

The availability of food ingredients in DIY Province is in fairly good condition, but the diversity of food consumption is still low. This research aims to determine the factors that influence the diversity of family food consumption in rural DIY. This research uses data from the 2015 Susenas in DIY as many as 571 families. Data analysis uses Ordinary Least Square (OLS). The average diversity of family food consumption in rural DIY is 64.20%. There is a positive influence of income and employment on the diversity of family food consumption. There is a negative influence on the number of family members and the poor family category on the diversity of family food consumption.

Keywords: *Diversity of Food, Energy Adequacy, Household Consumption, Rural*

INTRODUCTION

Food consumption is information on food consumed by a person in the form of the type and amount. Food consumption can be seen from the aspect of quantity and quality. The quantity of food can be known from how many nutrients are consumed, while the quality of food consumption can be known from its diversity (DKP, 2009).

The availability of food (energy) in DIY shows an average figure of 3,699.4 kcal / capita / day far above the national standard figure of 2,400 kcal / capita / day. While the availability of food diversity (PPH Score) in 2014 was 96.9, but the diversity of real food consumption in DIY only reached 85.3 (BKPP DIY, 2016). Therefore, this study aims to determine the factors that affect the diversity of family food consumption in DIY rural areas.

MATERIAL AND METHOD

The population of this study is all families residing in rural areas of Yogyakarta Special Region as a result of the 2015 susenas. The study sample was 571 families. The data source is secondary data from Surkesnas in 2015 in

DIY. The dependent variable in this study is the diversity of food consumption. The independent variables in this study were the age of the family mother, the number of family members, per capita income per month, raskin income, poverty, and the occupation of the head of the family.

The diversity of food consumption is measured by the Food Hope Pattern (PPH) score. The calculation formula for PPH (BKP, 2015) is:

$$SPPHp = \{(E_p/AKE) \times 100\% \} \times Bp$$

$$PPH = \sum_{p=1}^9 SPPHp$$

Information:

- $SPPHp$ = Food Pattern Score Expectations for food group p
- E_p = Amount of energy from food group p
- $AAAAA$ = The recommended Energy Adequacy Rate is 2,150 kcal/cap/person/day
- Bp = Weights for food group p
- $P1$ = Grain group
- $P2$ = Kelompok umbi-umbian
- $P3$ = Animal food groups
- $P4$ = Oil and fat groups
- $P5$ = Oily fruit/seed group
- $P6$ = Legumes group
- $P7$ = Sugar group
- $P8$ = Fruit and vegetable group
- $P9$ = Miscellaneous food groups
- PPH = Pola Pangan Harapan

To determine the factors that affect the diversity of family food consumption, use the *Ordinary Least Square (OLS)* test. The regression equation model is:

$$Y1 = \beta_0 + \beta_1 X1 + \beta_2 X2 + \beta_3 X3 + \beta_4 X4 + \beta_5 X5 + \beta_6 X6 + v$$

Information:

- $Y1$ = Diversity of Food Consumption (%)
- $X1$ = Age of mother (years)
- $X2$ = Number of family members (people)
- $X3$ = Family member's income (rupiah)
- $X4$ = Raskin 's family dummy reception was given a score of 1 and 0 for the others.
- $X5$ = Dummy poor families are given scores of 1 and 0 for others.
- $X6$ = Dummy farming families were given scores of 1 and 0 for the others.
- β_0 = Intersep
- Bli = Regression coefficient ; $i = 1,2, \dots,6$
- v = Stochastic variables

RESULTS AND DISCUSSION

The ages of mothers in the study ranged from 21 to 76 years, with an average of 44.96 years and a fashion of 45 years. According to the Ministry of Health of the Republic of Indonesia (2009), most of the mother's age is included in

the late adult group (36 - 45 years), which is 32.22%. The average number of family members of this study sample was 3-4 people, which was 61.65%.

The limit used to determine the poverty of families in the study sample is the per capita income of family members per month below Rp. 321,056 (DIY poverty limit in 2015). The work of the head of the family is grouped into two, namely farmers and not farmers. Raskin receipts are grouped into two, namely the family of raskin recipients and not raskin recipients. The poverty rate, employment, and acceptance of family raskin can be seen in table 1.

Table 1. Distribution of research samples based on poverty, head occupation Family, and Raskin Acceptance

No.	Description	Sum	Percent
1.	Poverty:		
	a. Miskin	104	18,20
	b. Not poor	467	81,80
		571	100,0
2.	Head of Family Jobs:		
	a. Farmer	308	53,90
	b. Not a farmer	263	46,10
		571	100,0
3.	Raskin Acceptance:		
	a. Raskin recipients	371	65,00
	b. Not a raskin recipient	200	35,00
		571	100,0

Source : BPS, Processed from Susenas Data in 2015

The number of poor families in the study was 18.20%, farming families were 53.90%, and raskin recipient families were 65.00%. Thus it can be known that families in rural DIY are mostly raskin recipient families. The family of raskin recipients are families that are categorized as poor according to the provisions and indicators of poverty set by the government.

The statistical distribution of minimum value, maximum value, average, and standard deviation value of variables per capita income per month, energy adequacy, and food expectancy pattern score (PPH) of rural families can be seen in table 2.

Table 2. Statistical Distribution of Variable Income and Food Diversity in Rural Areas

No	Variable	Minimum	Maximum	Average
1.	Revenue (Rp.)	156,763.90	1,317,774.00	539,283.00
2.	Score PPH (%)	29.03	98.74	64.20

Source : BPS, Processed from Susenas Data in 2015

From table 2 it can be seen that the average per capita income per month is Rp. 539,283. The average diversity of family food consumption is 64.20%. Meanwhile, the food pattern score of family food consumption expectations in rural

areas is still 64.20%. This shows that the diversity of food consumption is included in the category of less because it is still below 78% (Suyatno, 2012).

Diversity of Family Food Consumption

Factors affecting the diversity of family food consumption in rural areas of Yogyakarta can be seen in table 4.

Table 4. Factors Affecting the Diversity of Family Food Consumption in Rural Areas of Yogyakarta

Variable	Coefficient Mark	Coefficient		p	Value of t
Konstanta	+	54.379	***	.000	17.663
Age of the mother	+	0.058	ts	.217	1.236
Number of family members	-	1.420	***	.001	-3.492
Family members' income	+	2.539E-5	***	.000	10.654
Dummy raskin receiver	-	1.726	*	.093	-1.681
Dummy poor family	-	6.846	***	.000	-4.824
Dummy peasant family	+	2.257	**	.033	2.137
R value	: 0.607				
R-squared value	: 0.369				
Statistical F value	: 54.863				
The Value of Significance	: 0.000				

Source : BPS, Processed from Susenas Data in 2015

Information:

- *** : Significant at $\alpha = 1\%$
- ** : Significant at $\alpha = 5\%$
- * : Significant at $\alpha = 10\%$
- Ts : Insignificant

The OLS test results of diversity of family food consumption concluded that there is a close relationship between independent variables *and diversity* of family food consumption with an R value of 0.607. The R² value of the regression equation for food consumption diversity is 0.369. The coefficient of determination shows that 36.9% of the variation in food consumption diversity is influenced by *independent variables* and 63.1% is influenced by variables outside the model. The F test result shows a value of 54.863 ($p = 0.000$) for diversity in food consumption. These results show that *independent variables* together have a real effect on the diversity of family food consumption in DIY rural areas.

The constant value in the regression equation for diversity of family food consumption is 54,379. The value shows that if all independent variables are 0, then the diversity of family food consumption is 54.379%. The value of the constant is determined by other variables outside the regression equation for diversity in family food consumption.

The number of family members has a negative and significant effect on $\alpha = 1\%$ on the diversity of family food consumption. This means that the more the

number of family members, the diversity of family food consumption decreases. The regression coefficient of the variable number of family members was -1.420. The value of this coefficient means that every increase in the number of family members by 1 person, it will reduce the diversity of food consumption by 1.420%. This is because the increasing number of family members will increase the need for food consumption, so that food providers in the family tend to buy monotonous foodstuffs that are important family members can be full.

The income of family members has a positive influence on the diversity of family food consumption with $p = 0.000$. This means that the higher the income of family members, the higher the diversity of food consumption. The regression coefficient of the family member's income variable was 2.539E-5. This value means that for every increase in income of Rp. 100,000, the diversity of food consumption increases by 2,539%. The increasing income of family members has an impact on the purchasing power of family food is getting better and varied, so that the diversity of family food consumption will increase. The results of this study are in line with research in Pandegelang Regency, Ciamis Regency, Bantul Regency, Klaten Regency, and Pacitan Regency which stated that an increase in per capita income contributed positively to the increase in the score of food expectancy patterns (Mulyo, Musyafak, Timisela, Dirhamsyah, & Jabbaro, 2013). While research in Montenegro shows that higher income levels have a significant influence on the structure of food consumption so as to increase food expectancy food patterns (Jovanovic, 2016).

Raskin recipient families negatively affect the diversity of family food consumption, with a significance level of 10%. The raskin acceptance variable has a regression coefficient of -1.726. The results showed that if families received raskin, then the diversity of family food consumption was 1.726% lower than non-raskin recipient families. This happens because with the fulfillment of basic food needs from the Raskin program rice, the raskin recipient families no longer consume other energy source foods so that the diversity of energy source foods becomes limited and makes the food pattern of food consumption expectations (PPH) low.

Family poverty has a negative and significant influence on $\alpha = 1\%$ on the diversity of family food consumption. The regression coefficient of family poverty variables on food consumption diversity was -6,846. This means that if the family is included in the category of poor families, the diversity of family food consumption is lower by 6,846% than families that are not poor. This is in accordance with the theory that if the family belongs to the poor category family, then the income used to buy food is not enough. This situation will cause the food

purchased not in accordance with the needs and does not vary so that the quality of family food consumption becomes low. The results of this study are in line with research in Nigeria which states that poverty in rural families is a key contributor to food insecurity (Omotayo, Ogunniyi, Tchereni, & Mandleni, 2018).

Farming families have a positive influence on the diversity of family food consumption. The regression coefficient of the farmer family variable on the diversity of food consumption was 2.257. This means that if the work of the head of the family as a farmer, the diversity of food consumption is higher by 2.257% of non-farmer families. Farmer families have the ability to produce food sources of energy that vary for their own consumption so that the food sources of energy consumed by farming families become more varied compared to non-farmer families. Thus, the diversity of food consumption of farming families is higher than that of non-farmer families, while to increase the diversity of food consumption of non-farmer families with food and nutrition counseling. Counseling emphasizes the selection of varied, quality, and nutritious foodstuffs.

CONCLUSION

The average diversity of family food consumption is included in the less category, which is 64.20%. There is a positive influence of family income and the work of the head of the FAMILY as a farmer on the diversity of food consumption. While the negative influence on the number of family members and families of the poor category on the diversity of food consumption.

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